

ARCHITECTURE

❖ VOLUME LIX

APRIL 1929

NUMBER 4 ❖

Part of panel
over fireplace
—see page 216



From plaster
model.
Lee Lawrie,
Sculptor

The Bok Singing Tower

By Milton B. Medary

THE Mountain Lake Sanctuary and Singing Tower might fittingly be called the Americanization of Mr. Bok's heritage of beauty from his boyhood home in the Netherlands—an inheritance which has colored all his public work since his retirement as a publisher.

In creating both sanctuary and carillon tower, the only specification laid down by Mr. Bok was that they must be beautiful—as beautiful as it was possible to make them—and that material and craftsmanship must be chosen with that object as their *raison d'être*. As a matter of fact, no other specification was ever written for the carillon tower.

Realizing that beauty was universal in its nature and independent of chronology, geography or ethnology, but that its expression was local and dependent on all of this, no thought was entertained of reproducing at Mountain Lake the physical forms of the gardens or the singing towers of the Netherlands, but rather to reincarnate their spirit in America under a southern sky and amidst sub-tropical verdure.

The sanctuary is the work of Mr. Frederick Law Olmsted, and although the site was only a pine-clad hill with a rough tangle of underbrush in 1923, to-day it is a quiet retreat among trees and flowers, a sanctuary in its truest sense: open, sunlit, grass-carpeted glades framed in luxuriant, leafy shade broken through with dra-

matic vistas over lake and grove and distant hills. To watch the sun go down behind the hills as afternoon gives way to evening lights and shades is to receive a benediction direct from the hand of nature.

In 1926 Mr. Bok determined to add a further note of beauty—the melody of the bells which had sung for centuries from many towers in his native land. Here was a challenge. The music which had floated from the gray stone towers of the North, from cathedral, guild hall and hôtel de ville, must sing with the same power and beauty as the bells of St. Rombald of Mechlin,—but from a tower which must rise from the green live oak and flaming azalea of the flower-studded gardens of our own Southland. Bathed in scintillating sunshine, silhouetted against the blue of southern skies and mirrored in the placid waters of a pool—quiet and unruffled as the storied bayous which suggested it.

The bells must sing from a tower growing naturally out of the soil and out of the spirit of the sanctuary, and at the same time pay tribute to its ancestry—not only the traditions of the bell music of the North, but also the spirit of the arts which had been born under the blue skies and sparkling sunshine of other parts of the world: the colored marbles of Italy; the contrasts of stately mass and sculptured frieze of Greece; the plant and animal motifs of Persia

and India, and the porcelain temples of China.

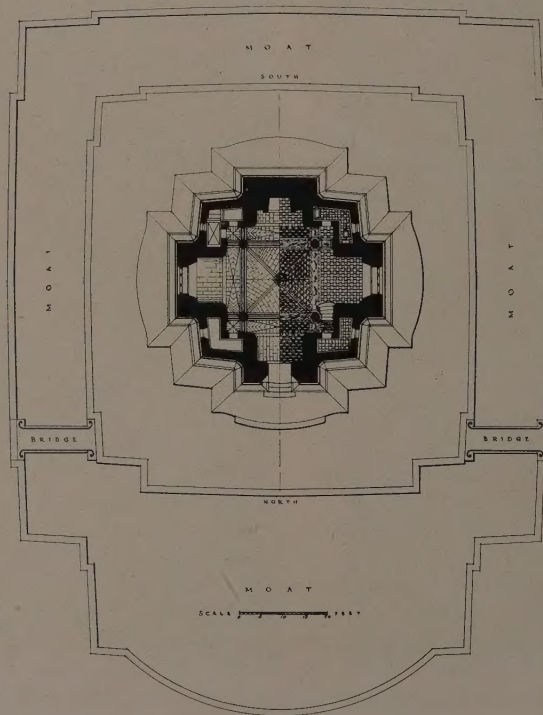
In a single, simple unit, it must sing of music, sculpture, color, architecture, landscape design and the arts of the workers in brass and iron, ceramics and marble and stone,—each a part of a chorus, each adding beauty to the others.

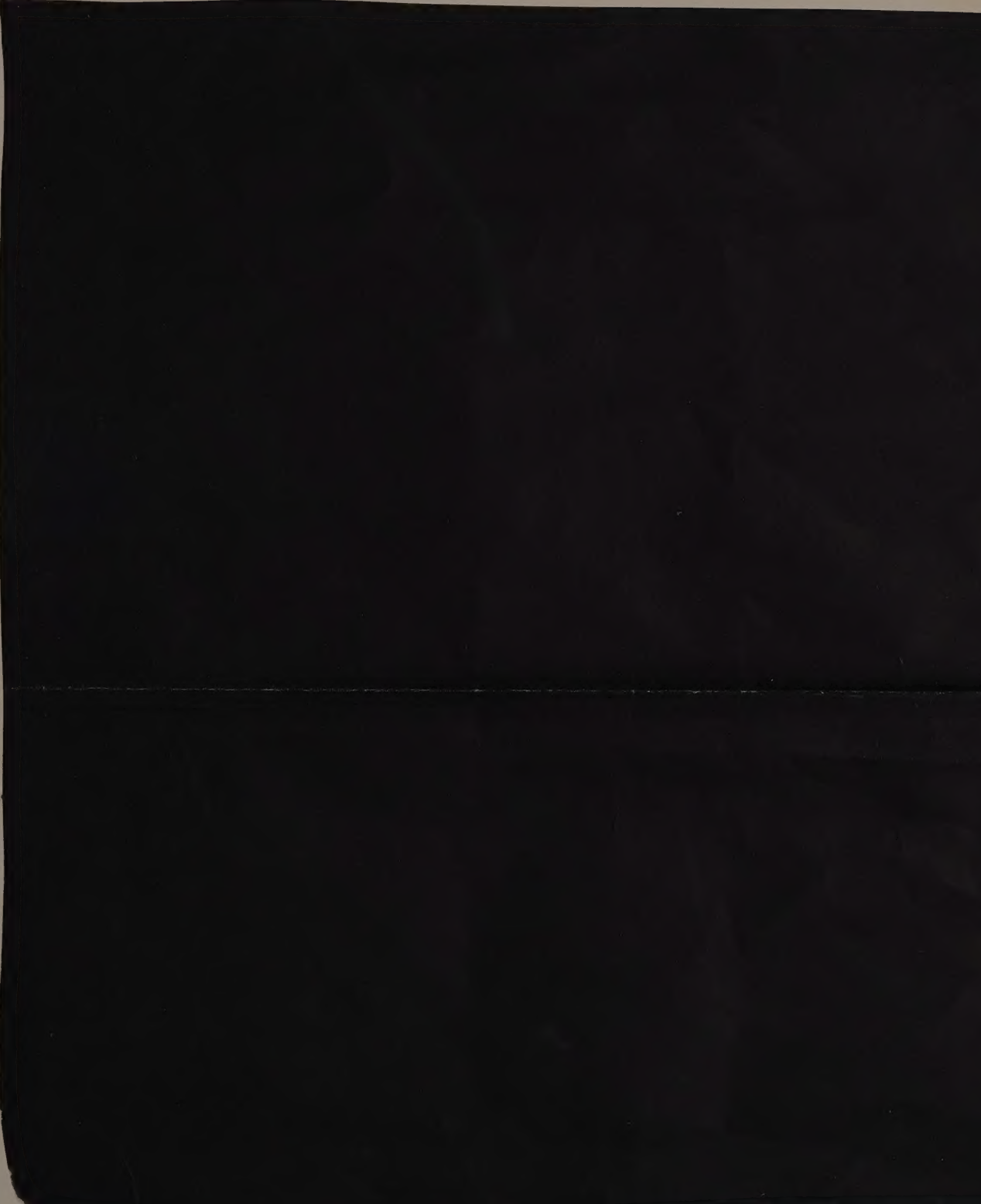
The tower must have dignity and power and authority in its mass, thoroughbred proportions and lines and grace and beauty and loveliness in its detail. Woven throughout its fabric by the handicraft of the artisans who should build it must be that love of beauty which was the sole reason for its creation. This was the challenge. To try to meet it as best we could, Mr. Lee Lawrie, Mr. Samuel Yellin, and Mr. J. H. Dulles Allen were asked by the architect to collaborate in determining the final form the design should take after its size and bulk had first been determined by a visit to the site with Mr. William Gorham Rice, authority on carillons, and Mr. John Oldham representing John Taylor and Company, the bell founders. The size and weight of the carillon most appropriate to the conditions at the site were determined upon, and with this decision the first dimensions of the tower were established. The bells must occupy a space not less than thirty-five feet in diameter

and fifty feet in height, and the lowest bell must be at least one hundred and fifty feet above the ground. To this fixed requirement add the character of foundations available and hurricane velocity of wind pressure, and the main lines of the tower were basically established. It was at this stage that the engineers, Mr. William H. Gravel and Mr. I. H. Francis, became collaborators.

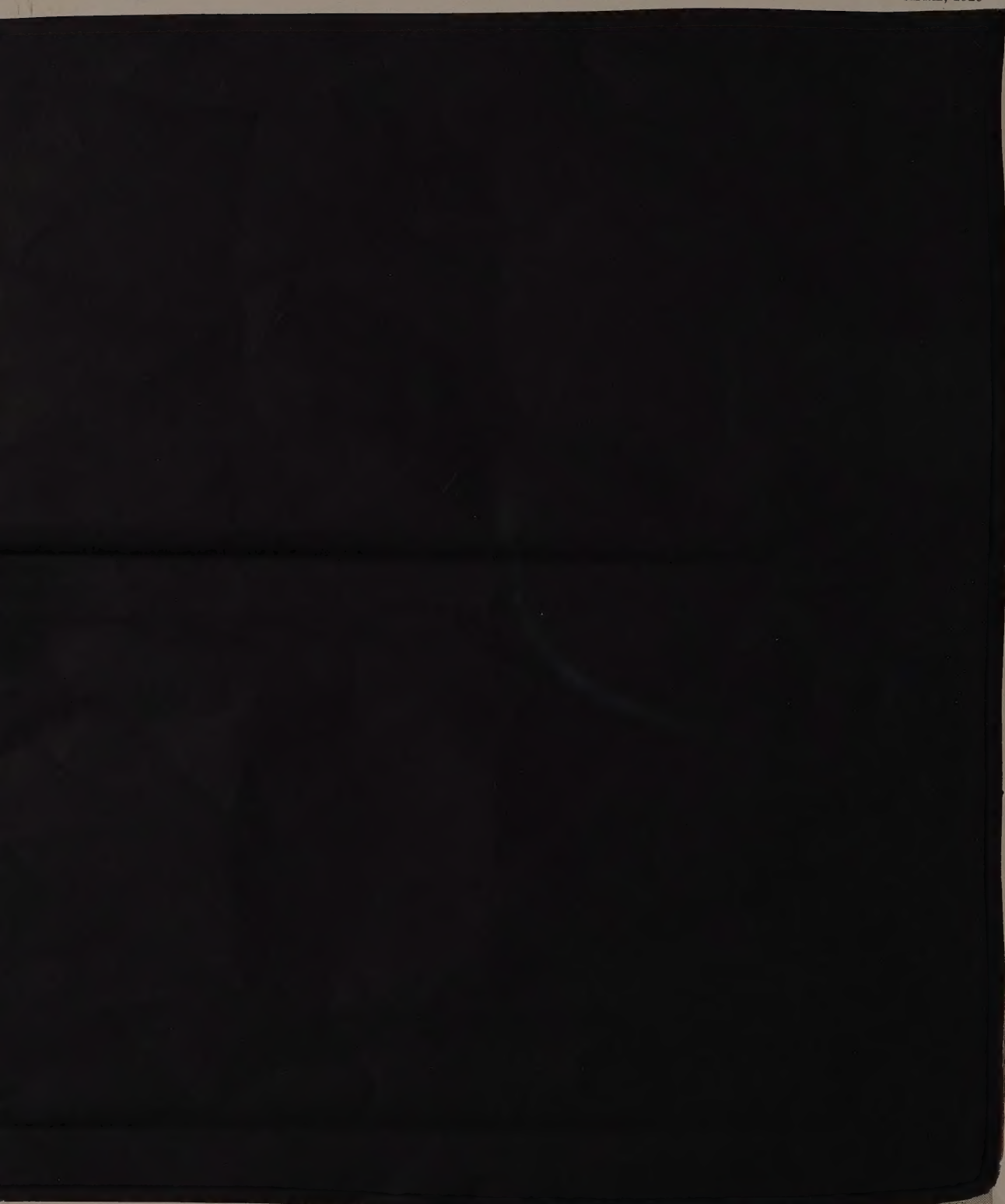
Florida and adjacent states were searched for building material and a builder selected to act in a professional capacity, purchasing the materials personally selected by the architect and employing only skilled artisans who could execute the work in the spirit which prompted it. The firm of Horace H. Burrell and Son was chosen as builder, Mr. Burrell, Sr. having begun his career as an architectural draftsman in the office of the late Frank Miles Day.

Credit for unusual precision and well nigh perfect workmanship is especially due Mr. Richard Henle, field director of the work; Mr. Vincent de Benedetto, master mason; and the stone masons, carvers and sculptors who actually executed the work; the sculpture being carved from Lee Lawrie's models under the direction of his assistant, Mr. Robert Wakeman.





The north front as seen from the end of the reflecting pool



Olmsted

The Polychrome Grilles of the Singing Tower

By J. H. Dulles Allen

ONE of the special problems involved in the design of the Carillon Tower had to do with the large grilles through which the sound waves from the bells could pass. It was required of these grilles that they provide 60 to 70 per cent of free opening. As to strength, they had to withstand not only their own weight—a considerable item in a grille 10 ft. by 35 ft. high—but also a possible wind pressure of great force. Certain limitations were imposed, also, as to thickness and weight.

It was thought advisable to seek a solution that would make simple the installation, avoiding the difficulties of a complicated structural form to be installed at a height of 150 ft. from the ground. Another desideratum was a freedom from vertical and horizontal members, so that the design might be light, airy, whimsical, in keeping with the character of a singing tower in a bird sanctuary.

The solution as worked out is a cast-iron frame of H section, four inches in depth, in the front of which is a polychrome ceramic facing set in cement. The bounding edges of iron are covered with gold leaf.

All credit for the conception and originality of the idea is due to Mr. Medary. The design

of the grilles, including the study of the color to carry from its elevation of 150 ft., was done by the Enfield Pottery and Tile Works, who executed the tile work. The Smyser-Royer Company made the remarkably difficult castings.

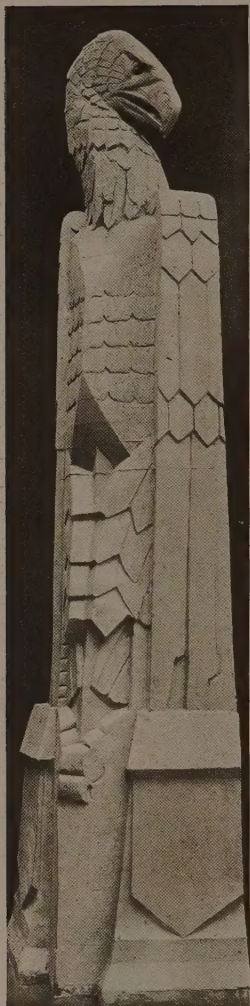
There are eight of the tall grilles, and below these are smaller ones. In the bottom lancets are pictured the lower orders of life—that of the sea and fresh water, ascending to man (Adam and Eve), the first garden, and land life in the intermediate grilles. The upper stage—the tall grilles, two of which are reproduced as the frontispiece from the color cartoons, represent imagination and fancy, or, if you will, art, imagery, and man's aspiration. In these eight larger grilles the decorative form is carried by two types of trees, the deciduous in four grilles and the moss-draped tree of the South in the alternating ones. Many birds are introduced, naturally, with flamingoes at the base of one set and baboons in the others.

Because of the unusual character of these grilles, the Metropolitan Museum requested a specimen for display in the International Exhibition of Ceramic Art, and subsequently this was requested for display in the Philadelphia Museum of Art.

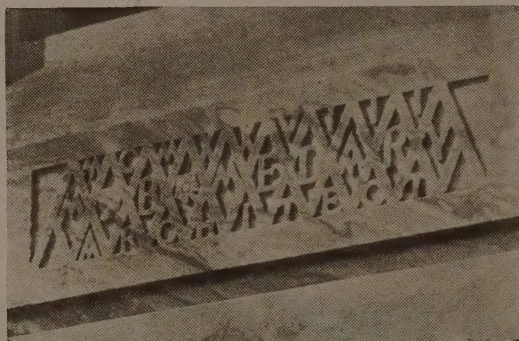


R. V. Smutney

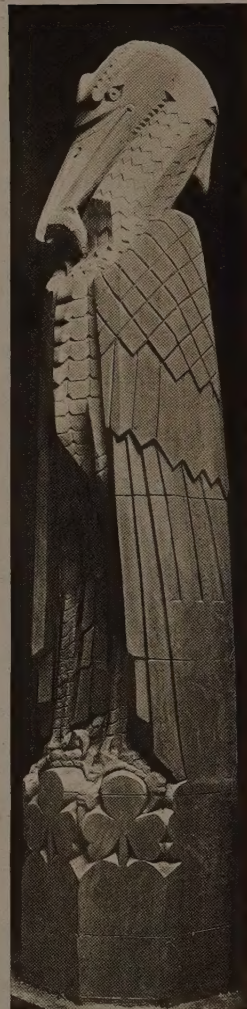
Mr. Lawrie's model of the top, showing the pierced parapet



Detail from the sun-dial; models of the zodiac signs are illustrated on page 206



Mr. Medary accepted Mr. Bok's request for a signature by putting this decorative panel under the east window



These and the eagle and heron above are from Lee Lawrie's models. The big birds were finally cut from single blocks of the pink Georgia marble



H. H. S.

The sun-dial, south front. For models of the zodiac signs see page 206. Note the piercing of Mr. Lawrie's decorative band above, for the balcony, the shallow incising on the buttress lines, and the deeper cutting over the ashlar



Aries



Taurus



Gemini



Cancer



Leo



Virgo



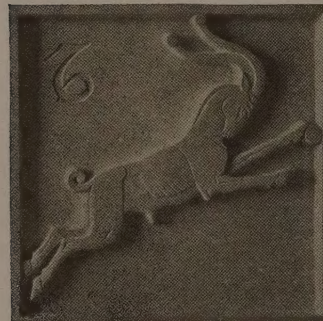
Libra



Scorpio



Sagittarius

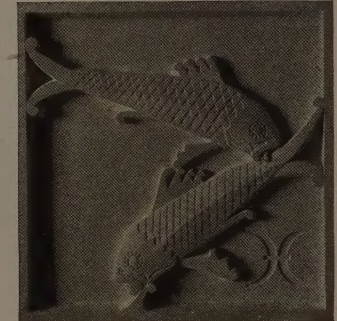


*Alexander,
Lake Wales*

Capricornus



Aquarius



Pisces

Models for signs of the zodiac on the sun-dial, made from Mr. Lawrie's drawings by his assistant, Robert C. Wakeman



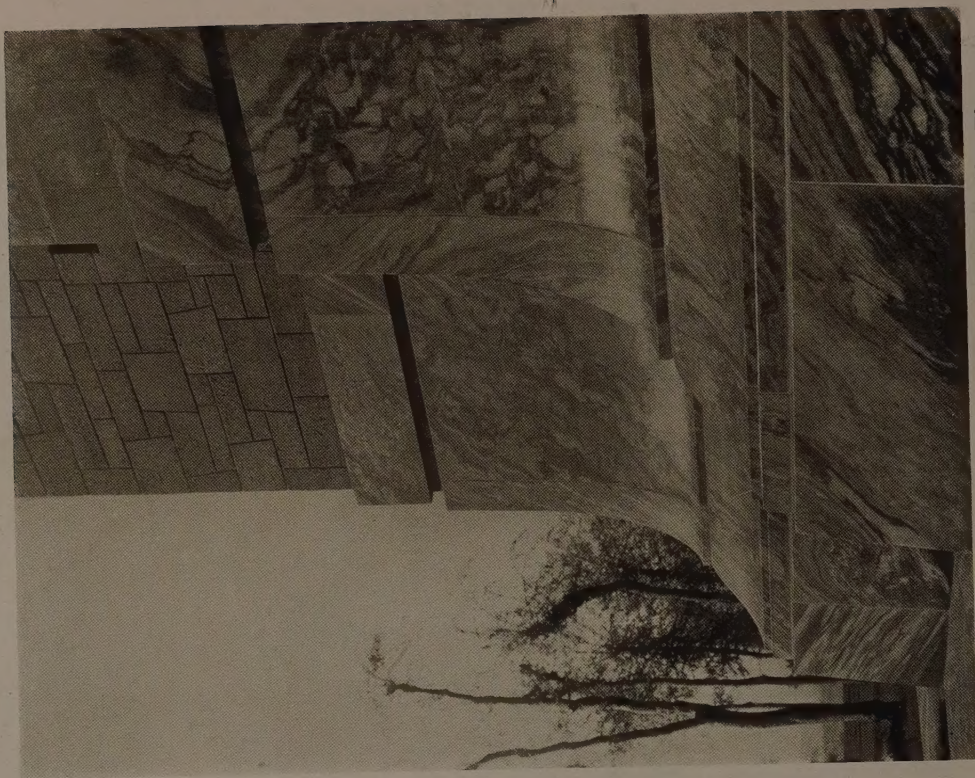
H. H. S.

The south front with its sun-dial at the base. Incidentally, there is not a continuous vertical line in the structure—even the elevator-shaft curves ten inches out of the perpendicular



H. H. S.

One of the two bridges across the moat. The wrought iron, unusually heavy in scale to accord with the great base of the Tower, was designed and executed by Samuel Yellin



H. H. S.

Profile of the base, of strongly veined Creole marble. The coquina rock has here for the first time been cut as ashlar and laid up by masons from Philadelphia



H. H. S.

A glimpse of the grilles and top carving through the trees



R. F. Smalley



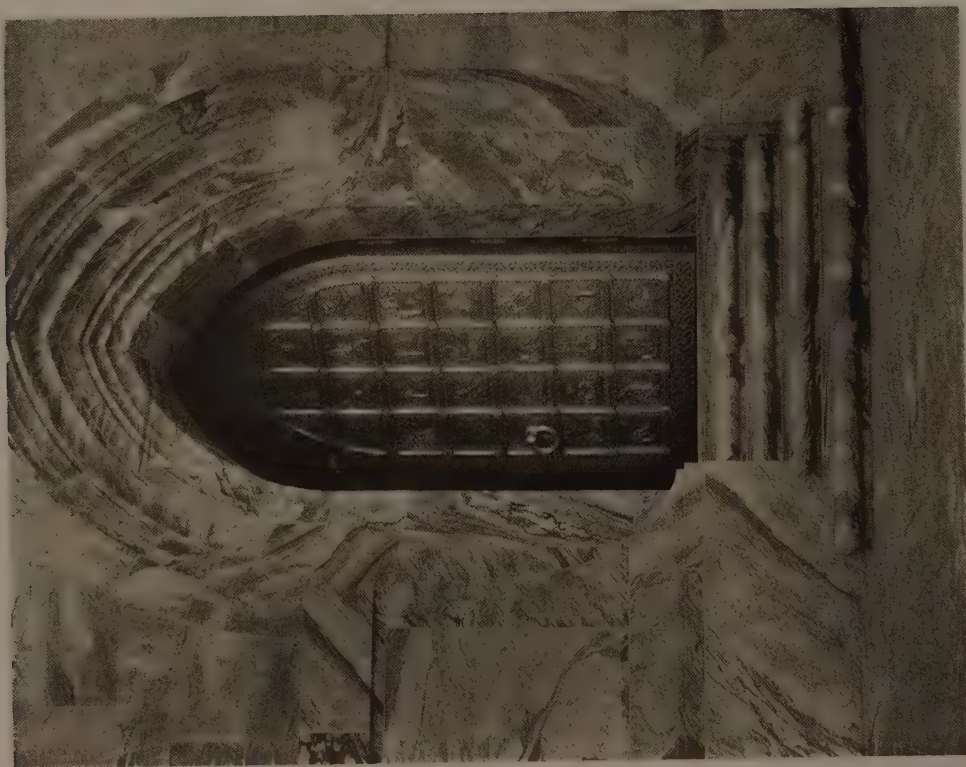
R. F. Smalley

Mr. Laverie's models for the east and west window grilles. The windows themselves, unfinished at the time of dedication, are cut from white marble, six inches thick at the maximum and thin enough on many edges to be translucent. Plate glass, set in bronze frames a foot back of the grille, gives protection when needed

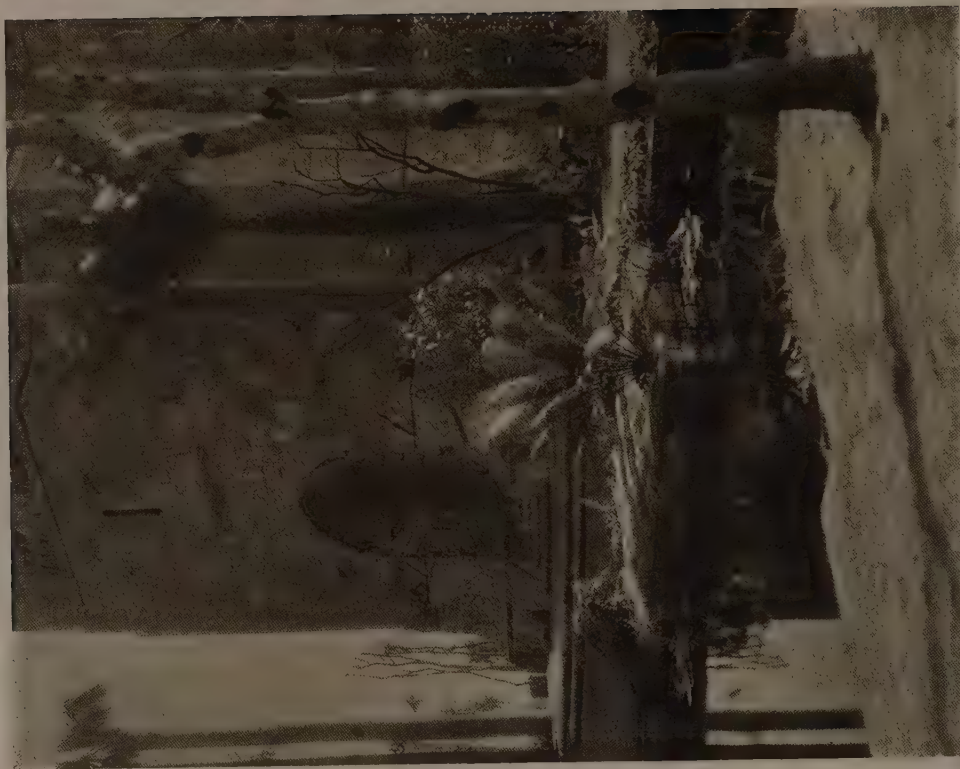


H. H. S.

Detail of the east front at the base. The contrast of the pinks of coquina ashlar and Etowah marble with the foliage greens and grays and the luminous tropical sky, gives the Tower with its soaring buttresses an effect that is strangely ethereal



U. H. S. For the great Golden Door, the sole entrance to the Tower, Samuel Yellin has designed and hammered out in repoussé brass the story of the Creation—a piece of craftsmanship the like of which has perhaps not been attempted since the Romanesque was at its best



U. H. S. Looking across the moat toward the Golden Door. The great royal palms, one of which is seen at the left, have only recently been transplanted to their present locations and have had to be severely cut back

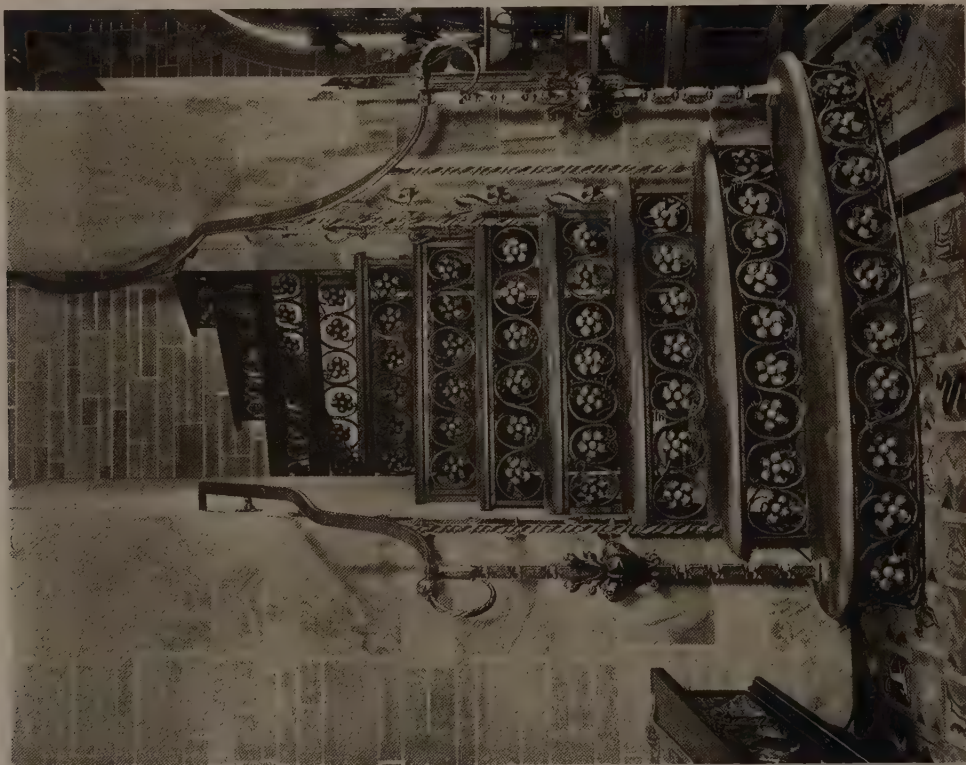


*Above and below,
sections of Mr.
Lawrie's models for
the carved marble
band; these two ap-
pear on the east
front*



*Looking across the
landing of Mr.
Yellin's wrought
stairway indoors
and showing some-
thing of the spring-
ing of vaults above
the main room*





H. H. S.

Samuel Yellin wrought this stairway of iron, with teak-wood treads, curving around one of the free columns and bridging the entrance bay before continuing to the enclosed tower stairs



H. H. S.

The room at the base of the Tower is walled in the same coquina ashlar and marble as the exterior, lighted chiefly by the pierced marble grilles, and roofed by a series of true stone vaults



H. H. S.

Mr. Yellin's stairway, with its perfect flowering of wrought-iron craftsmanship, in which structure and decoration are indissolubly wedded



H. H. S.

Over the fireplace, facing the entrance, Mr. Lawrie has carved the panel shown by the model on page 199, with the flanking groups of onlookers, and, above, the quotation which prompted Mr. Bok's gift to the American people

The University of Chicago Chapel

By E. Donald Robb

IN the Chapel of the University of Chicago, the Goodhue Associates, Messrs. Mayers, Murray & Phillip, have struck an architectural note whose echoes will travel far and sound for many years.

Gothic architecture to-day seems to be divided into two distinct types, corresponding closely with the two types of churchmen, the mystical and the practical, found in all denominations. In certain church bodies the mystical point of view prevails, the emphasis is placed on the service of worship, and the arts of the Church, from the liturgy to the lighting system, are enlisted in an effort to uplift the congregation through an appeal to the emotions. As a general thing, a client of this temperament will prefer as a setting for his ritual a type of Gothic architecture strongly reminiscent of the mediæval. In fact, the more successfully the spirit of the past is revived, the more nearly will the building seem to fit its purpose. Its lines and proportions will be quiet and reposeful. There will be no straining for effect, no self-consciousness, no clever tricks which the inventive architect so loves to indulge in, no architectural mannerisms. The interior will be shadowy, with a dim religious light, and maybe the sweet odor of incense. One will listen in vain for the crash of tenpins in the basement, or the bugle call of the Boy Scouts in the neighboring parish house. Neither is there likely to be a microphone on the pulpit.

To the practical churchman the mystical has little or no place in his programme. It is not featured in the curriculum at his College of Religious Education. It is largely a thing of the past. Its shadows were dispelled with the dawn of the Renaissance. To-day religion is a practical thing—its principles must be applied to life in a laboratory called the parish house, now grown to proportions rivalling the church itself. Where before we had quiet meditation and prayer, now we have feverish activity, organizations for this, organizations for that, everything classified, catalogued, card-indexed; every angle, nook, and corner of life, except perhaps the inmost, provided for in some way. On the one hand we have the emphasis placed on the ser-



vice of worship, while on the other it is the worship of service.

It is not strange that such a revolution in the religious world should have produced something wholly up-to-date

in religious art, and in this new movement Bertram Grosvenor Goodhue easily held undisputed leadership. His work has that same nervous energy, that same tendency to experiment; to strike out into new fields, to unfold new theories; that same restless impatience with old methods that we find in the religious bodies mentioned above.

The University Chapel is one of many gifts to Chicago University by John D. Rockefeller. Of the ten million dollars known as the "Final Gift" pledged on December 13, 1910, "at least the sum of one million, five hundred thousand dollars" was to be "used for the erection and furnishing of a University Chapel." Architecturally it was to be "the central and dominant feature of the University group," and thus to proclaim "that the University in its ideal is dominated by the spirit of religion."

In July of 1917 Bertram Grosvenor Goodhue was commissioned by the trustees to prepare a design for the Chapel. The results of the following two years of study showed a church which, had it been executed, would have been the crowning achievement of a consistently developing life. In its every detail it was Goodhue at his latest and best—big, powerful, bold in mass, its boldness set off by concentrated ornament of great richness and delicacy. A tower in general design quite similar to the one finally constructed surmounted the crossing, and flat-roofed transepts gave a cruciform shape to the plan. But alas! when estimates were taken (we all know the feeling) it was found to be \$800,000 wide of the appropriation.

The blow caused the project to be laid aside until the early spring of 1924, when revisions were started with the hope of reducing its cost. During the process of restudying the design, Mr. Goodhue's brilliant career was suddenly terminated by his death, and the work of carrying out the revisions was continued by his successors, Messrs. Mayers, Murray & Phillip, then known as the Goodhue Associates. The building as it stands to-day is this revised de-



Chicago Architectural Photographing Company

UNIVERSITY OF CHICAGO CHAPEL. EAST SIDE
BERTRAM G. GOODHUE AND BERTRAM G. GOODHUE ASSOCIATES, ARCHITECTS

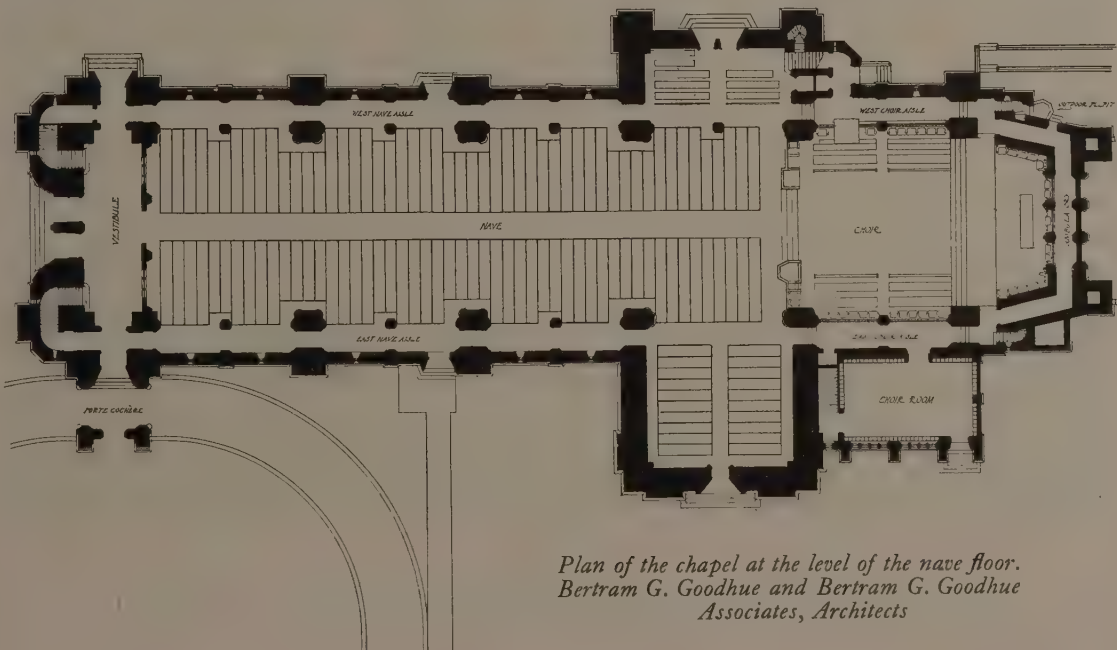
sign, carried out by these men with the utmost care and the deepest respect for the ideals of their Chief. To quote from the Chapel Guide prepared by Doctor Edgar J. Goodspeed: "The University Chapel represents the happy conjunction of a great benefactor with a great architect. It embodies the last gift of the former and the last work of the latter, and in the annals of Art and of Benevolence it was already historic even before it was completed."

Ground was broken for the Chapel on August 28, 1925, the cornerstone was laid on June 11, 1926, and the dedication ceremony was held on October 28, 1928, three years and two months after the work of construction was begun. As one approaches the Chapel from the direction of the city, the tower breaks the skyline from a considerable distance. The upward rush of line in buttress and window gives it the appearance of tugging at its foundations, as if it were striving to add to its 207 feet of stature. It seems to stand for sturdy manhood, progressive, but not without a religion of its own, although that religion is far from the orthodox kind. Its character more nearly resembles the ideal of the average modern college student than does the more reposeful Gothic of the traditional type. It, therefore, will speak its message more potently. By its lines and proportions it seems to typify the eager alertness of youth in things mental and physical (especially physical). By its facial expression one is led to

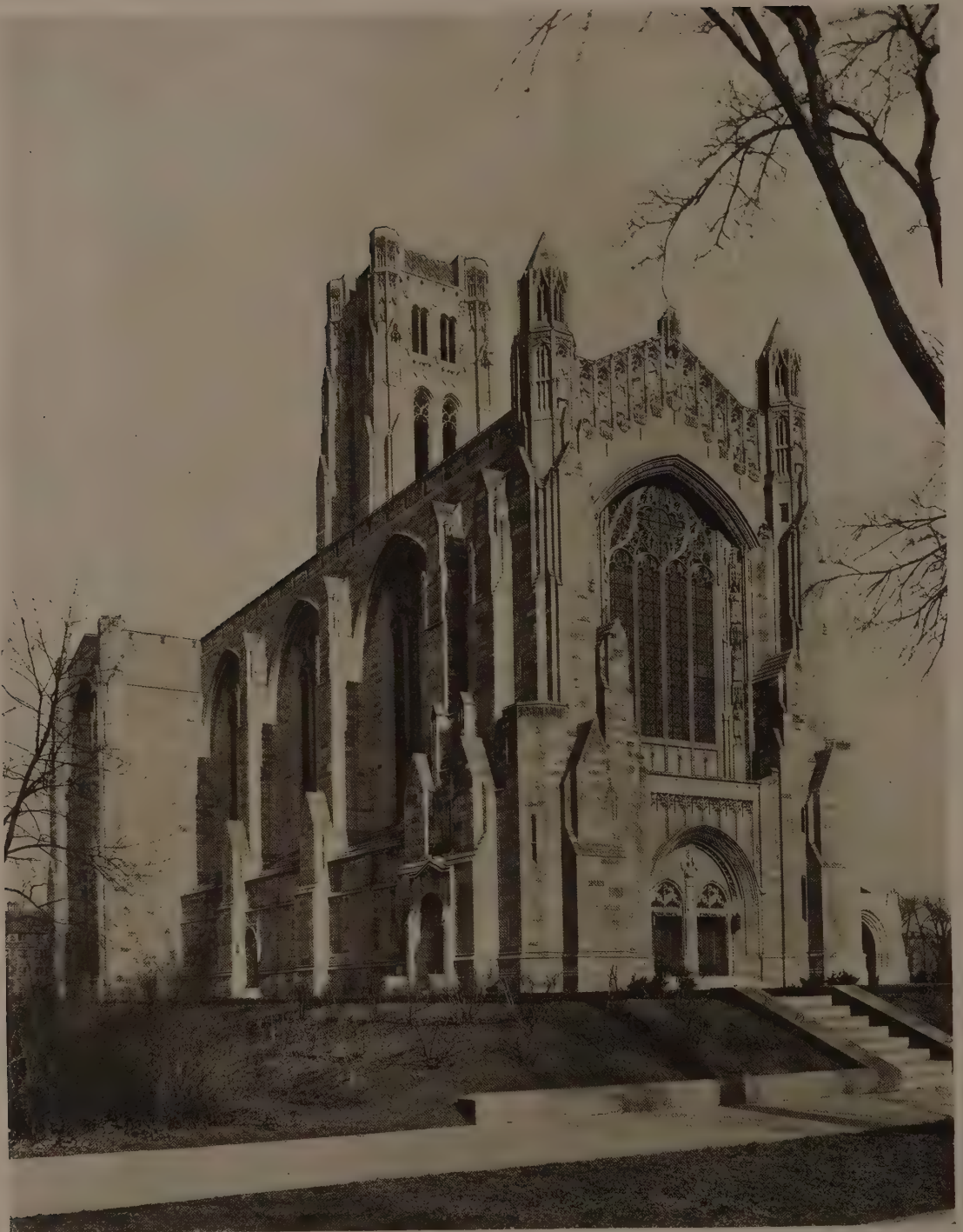
assume that it is not given to soulful contemplation, nor to profound cogitations on the things of the spirit. It is no bookworm but a wide-awake student of current affairs, perhaps a little materialistic, but keenly alive and growing, that this tower seems to represent.

While the tower strikes the dominant note of the composition, the same characteristics are carried consistently throughout the building. The interior gives no mysterious vistas—all is known about its organism at a glance. No shadows lurk in unexplored corners. The light of day entering through the huge clerestory windows makes everything plain. Religion is bereft of mysticism and seems, in this case at least, to get on well without it.

The plan of the Chicago University Chapel is irregularly cruciform in shape, and consists of five square bays, approximately 40 ft. in each direction, with the tower forming an eastern transept (the church faces south), and a shallow western transept opposite. The north end terminates in a pseudo apse. This extreme simplicity together with the unusual width of bays gives to the interior a vastness which is very impressive. Viewed from the outside, there is an unpleasant disparity between the broad spans of the nave, transept, and chancel and the narrow openings of the tower. The main building seems to march along with giant strides, like the hero of the fairy tale in his seven-league boots, while the tower goes upward like Jack on his bean-



*Plan of the chapel at the level of the nave floor.
Bertram G. Goodhue and Bertram G. Goodhue
Associates, Architects*



Chicago Architectural Photographing Company

UNIVERSITY OF CHICAGO CHAPEL. FROM SOUTHWEST
BERTRAM G. GOODHUE AND BERTRAM G. GOODHUE ASSOCIATES, ARCHITECTS



Chicago Architectural Photographing Company

UNIVERSITY OF CHICAGO CHAPEL. THE NAVE, LOOKING TOWARD CHANCEL
BERTRAM G. GOODHUE AND BERTRAM G. GOODHUE ASSOCIATES, ARCHITECTS



Chicago Architectural Photographing Company

The tower from the south

stalk. From north or south the masses and voids arrange themselves in compositions of great beauty and power.

The main façade, facing what was the Midway of the Columbian Exposition, is unusually refreshing and beautiful. Strikingly powerful in its design, it successfully combines breadth and massiveness with extreme richness and delicacy. Concentration of ornament where ornament is needed is enhanced by the careful suppression of all shadow-casting mouldings elsewhere. Buttresses pile one above another and one against another in interesting fashion, leading the eye upward toward the gallery of figures in the main gable. One wonders why so many buttresses are needed at this particular place, and the excuse is hard to find; but we all have trouble in adhering strictly to logic, and sometimes reason has to be sacrificed to fancy. The main south window, relieved by a deep arch, perhaps a trifle too flat to suit some of us, is a thing of beauty, bold in its main lines but delicately playful in its smaller parts. The interplay of these simple patterns with the joyful caprice of the minor orders of tracery has a parallel in music, where a noble air is carried on the strings or brasses while the piccolo executes a cadenza, to the delight of all. The crowning feature of the façade is the gallery of life-size figures representing the March of Religion across the centuries from Abraham to the Reformation. These figures are the work of Ulric Ellerhusen, collaborating with Lee Lawrie.

The figure over the trumeau of the main entrance is by Lawrie—Saint Michael about to slay the Dragon—a fine piece of sculpture, although somewhat too large for the niche. A little thought, however, will disclose the reason: He who is content to stand complacently in his niche, expecting and enjoying the admiration of the passers-by, will seldom find himself outgrowing it; but he who, forgetful of himself, gives his entire attention to the job at hand, will soon find himself sloughing off one niche after another. Michael, always in action, never posing, continually finds his niche too small.

To the left or west side of the main front, it is planned to build a cloister garth, and the west narthex door will be entered from this cloister.

The first impression of the interior having been assimilated, one's attention is drawn to the ceiling of Guastavino tile, treated in a manner unique among Gothic structures. The square bays are divided by diagonal ribs of the same



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UNIVERSITY OF CHICAGO CHAPEL. MAIN ENTRANCE. SAINT MICHAEL BY LEE LAWRIE, SCULPTOR
BERTRAM G. GOODHUE AND BERTRAM G. GOODHUE ASSOCIATES, ARCHITECTS



Chicago Architectural Photographing Company

UNIVERSITY OF CHICAGO CHAPEL. THE NAVE FROM THE CHOIR
BERTRAM G. GOODHUE AND BERTRAM G. GOODHUE ASSOCIATES, ARCHITECTS



Chicago Architectural Photographing Company

UNIVERSITY OF CHICAGO CHAPEL. ORGAN BAY FROM TRANSEPT
 BERTRAM G. GOODHUE AND BERTRAM G. GOODHUE ASSOCIATES, ARCHITECTS

tile, fifteen inches wide, meeting against a circle of openwork tile. The bays are separated by transverse arches six feet wide. Color is introduced on and about these ribs in the form of panels and medallions of glazed tile. These are from cartoons by Miss Hildreth Meière, whose work in a similar medium is to be seen also at the Nebraska State Capitol, and at the Academy of Natural Sciences in Washington, D. C.

The method of making the transition between these ceiling ribs and arches and the piers which carry them is not very satisfying. There is no improvement here over the more usual capital cluster, or moulded band. At this point the hand of the designer relaxed. There is not the same sureness of touch that characterizes the whole work elsewhere.

The chancel is planned especially for convocations, with seats all around the walls, and the President's chair on the axis. Behind the President's chair and those flanking it rises the great stone reredos, 35 ft. high, which soon will contain statues of twelve outstanding Christian preachers from the first century down to our own, gathered about the central figure of Christ.

Seats for the choir are banked on each side of the chancel, with additional seats for antiphonal singing in the gallery at the opposite or south end of the building. Here we see a rather unusual feature—a gallery in two stories, with organ cases piling above at each side, the whole forming an uncommonly interesting and skillfully wrought mass of woodwork framing the large south window. The low double-arched nave arcade carries across the transept, and gives a shallow gallery here as well. This feature is not repeated on the opposite side. Here the entire transept opens out into the lower stories of the tower. When one remembers the height to which the tower climbs above this opening, imposing enormous weight of masonry on the arch and piers at this point, it would not be unreasonable to expect a strengthening of the piers and arch just here, in true Gothic fashion. But nothing occurs to remind us of the pressure of the tower above; nothing except the closing-in of the window in the east side from a three-light to a single-light opening, and the plainness of wall treatment on north and south sides.

Although the light which enters through the huge windows has been tempered somewhat by the use of amber tints in the glass, the interior is rather light, and lacking in the color usually supplied by stained glass. While none is con-

templated at this time, memorial windows in full color may some day fill the openings. The stained-glass artist will here have an unrivalled opportunity to display his skill, with window lights of a width to his liking. These windows, that is to say those in the clerestory, are 15 ft. in width, of three lights, and 43 ft. high. The great south window measures 20 ft. 6 in. in width by 38 ft. 9 in. in height; and the north or chancel window is 25 ft. wide by 46 ft. high. This last is one of the largest tracery windows in America, surpassing the chancel window of the Princeton Chapel by 4 ft. in width and 6 ft. in height.

The pews of the nave and transepts afford a normal seating capacity of 1,789, with space for additional seats in aisles, chancel and galleries, bringing the total to 2,218. The cost of the Chapel, including its furnishings, was a trifle under two million dollars. Its total exterior length is 265 feet, exterior width across nave and aisles 73 ft. 7 in., exterior width across transept and tower 120 ft. The span of nave between piers is 41 ft., width of bays 39 ft. 8 in., interior height of ceiling 79 ft. 5 in., height of ridge above grade 102 ft., height of tower above grade 207 ft. The Chapel is built of Indiana limestone.



To quote once more from Doctor Goodspeed's Guide: "It is not too much to say that the Chapel would be worth while simply as a thing of beauty, even if no service were to be held in it, and no 'use' ever made of it. It is to see just such things that we make long and costly journeys and visit distant lands. Thoughtful students who spend years in daily companionship with this building, even if they never enter it, will have some æsthetic background against which to set great architecture wherever they may find it. Simply as an architectural masterpiece of extraordinary eloquence and power, the Chapel is worth while; and it is no small educational contribution to strike as it does the note of nobility and beauty in the midst of our academic life."

The Chapel is well worthy of these words of Doctor Goodspeed, and for the cause of modernized Gothic architecture it marks an advance of which history will not fail to take note.

EDITORIAL COMMENT

❖ Vol. LIX, No. 4

ARCHITECTURE

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I would warn anybody who contemplates the erection of a building, however great or however small, of the fallacy that it is good policy to economize on the architect's fees. Speaking as a landlord, I can assure him that it is not.

H. R. H. THE PRINCE OF WALES



THE PRIVATE CITY HOUSE RETURNS

WITH the steady and rapid encroachment of tall apartment-buildings upon land hitherto given up to the individual dwelling, it has seemed easily possible that any crowded metropolis might eventually do away entirely with the private house. The advantages offered by the multiple dwelling have certainly been a powerful factor in luring even the well-to-do from their private homes. Simplification of the servant problem, freedom from fire hazards, the greater convenience of heat which one did not have to generate, the ease with which one could close up the place and go away, the shifting of all responsibility for upkeep, the doing away with worries as to possible depreciation—all such lightening of burdens and responsibilities combined to persuade the city home owner to relinquish individual ownership. And, strongest argument of all, the powerful upward surge of land values, with its following wave of taxation, made his tenure more difficult year by year.

And yet there are signs that the individual city house is not so near extinction as we might have come to believe. We have been going forward at a terrific rate in housing more and still more people on a given acre of land. We have thought, apparently, that all we had to do was to build higher buildings, secure more cubic feet by building upward instead of outward. But the end is already in sight. We build one high apartment-house on the corner of a residential block, and we have utilized the land to greater efficiency. We build another tall building at the next corner, and still all is well. We fill in between the two with more high buildings, and suddenly all is not well; we have gone over the peak of housing value and are on a swift descent wherein the whole block deteri-

orates in rentability. We have made the fatal error of offering people less than an acceptable minimum of light and air.

Just here is where the private dwelling may come back into its own. Utilizing, let us say, the parallel avenue frontages of a city block for multiple dwellings that, by set-back or interior courts or side courts or what not, provide an acceptable allotment of light and air, it is actually better business to have the intervening side street sites covered with low buildings. These too, of course, could be apartments of five or six stories and they might conceivably be integral with some or all of the higher structures. Nevertheless, there is a definite area here which must, economically, remain a no-man's land so far as the tall building is concerned; it can be occupied only with real peril to the whole sector.

Naturally the accomplishment of a transformation of the former block of city houses into a modern block wherein the land is utilized to its maximum yet stable value is something that can be brought about only by single ownership or else by a long and radical step forward in zoning-control on the part of the municipality. Nor is single ownership of a block enough to protect it from what a competitive grab of land values may wreak upon the next adjoining block. The point is, however, that irrespective of the methods finally evolved to stabilize values in residential city areas, the private house is likely to have its rightful place in the sun.

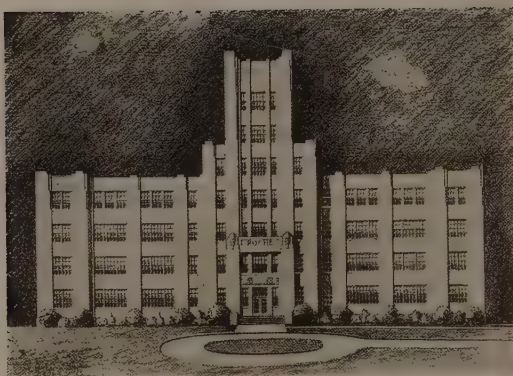


The Fine Arts are always an expression of the historical antecedents, the intellectual, moral, and material conditions, and the religious beliefs of the peoples and epochs to which they belong.

CHARLES H. MOORE

Until architects manage to agree to unify themselves into the same position as the surgeon, who rightly employs an anesthetist to silence his client from giving advice on how he should operate, or until the architect becomes, as the captain of any passenger-ship, capable of ordering a "good business man" from the bridge, London cannot improve.

C. R. W. NEVINSON

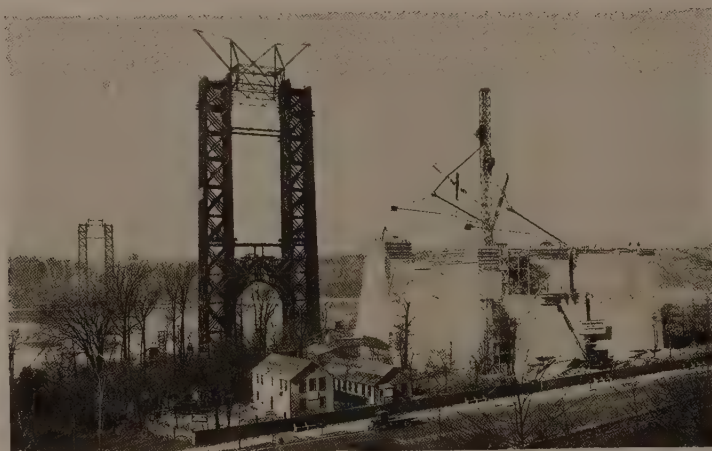


A proposed manufacturing laboratory for the Hoffman-La Roche Chemical Works, Nutley, N. J. C. H. Benjamin, Architect



San Angelo, Tex., has just finished its new City Hall and Auditorium. Trost & Trost, Architects and Engineers

Architectural News in Photographs



The new Hudson River Bridge from the New York side

Cass Gilbert, Architect; O. H. Amman, Bridge Engineer



M. E. Church nearing completion in Tulsa, Okla. Designed by Adah M. Robinson; Rush, Endacott & Rush, Architects

The New Eaton Company, Ltd., department-store building for Toronto. Ross & MacDonald, Architects; Sproatt & Rolph, Associated Architects



The proposed Lincoln Building, 42d Street, New York City. J. E. R. Carpenter, Architect



One of Detroit's new skyscrapers, the Union Trust Building. Smith, Hinchman & Grylls, Architects and Engineers

"Flight of Europa," for which the National Arts Club has awarded its prize to Paul Manship, Sculptor



Another recently completed Detroit skyscraper, the Penobscot Building. Smith, Hinchman & Grylls, Architects and Engineers

Central Savings Bank at 73d Street and Broadway, New York City. York & Sawyer, Architects



Yeshiva College, at 186th Street and Amsterdam Avenue, New York City. Charles B. Meyers, Architect



BOOK REVIEWS

A.-G. PERRET ET L'ARCHITECTURE DU BÉTON ARMÉ. By PAUL JAMOT. 104 pages and 48 plates, 9 by 11½ inches. Paper covers. Paris and Brussels: 1927: Librairie Nationale d'Art et d'Histoire; G. Van Oest, Editeur. 200 fr. (about \$8).

An appreciation of Perret's work with reinforced concrete, some of the best-known examples of which are the Théâtre des Champs-Élysées, 1911-13; Notre-Dame du Raincy, 1922; the Théâtre de l'Exposition des Arts décoratifs, 1925; and the Grenoble Tower, 1925.

LE FER FORGÉ EN FRANCE AUX XVI^E ET XVII^E SIÈCLES. By LOUIS BLANC. A.D.G.F. 28 pages and 96 plates, 8¾ by 12½ inches. Paper covers. Paris and Brussels: 1928: Les Editions G. Van Oest. 200 fr. (about \$8).

Biographical notes concerning the outstanding designers of the period who contributed to the store of France's most elaborate wrought-iron work, followed by well-chosen and excellently reproduced drawings of their best productions. Although many of these designs seem better suited to casting in bronze rather than forging in iron, they at least show no dearth of beautiful motifs.

PHILIP HOOKER. A Contribution to the Study of the Renaissance in America. By EDWARD W. ROOT. 242 pages and 100 plates, 9 by 12 inches. Edition limited to 750 numbered copies. New York: 1929: Charles Scribner's Sons. \$12.

Very little has been known of this particular one of the little group of architects to whose efforts is due the American Renaissance. Very little would ever have been known had not Mr. Root undertaken the labor of love which has resulted in making a record of facts that were all but lost in oblivion. For those to whom even the bare facts are unfamiliar, Philip Hooker designed most of the public work in and about Albany, N. Y., from 1800 to 1830, including the well-known Albany Academy and the Chapel of Hamilton College. All of his work that remains is well illustrated by photographs and drawings, and much of that which has disappeared is brought back to us through old prints.

A HISTORY OF GARDEN ART. By MARIE LOUISE GOTHEIN. Translated by Mrs. ARCHER-HIND, M. A. 2 vols.; 946 pages, 7½ by 10½ inches. Over 600 illustrations from drawings and photographs. Second edition (first publication in English). Translated from the German, "Geschichte der Gartenkunst." Printed in Great Britain. New York: 1928: E. P. Dutton & Co., Ltd. \$25.

A record of the means and methods by which garden-lovers in all ages and in all climes have

sought beauty. It is not a manual on gardening, but an historical and social record of the art of gardening from ancient Egypt, Western Asia, and Greece, through the Roman Empire, Byzantine Gardens, the countries of Islam, the Middle Ages, the Renaissance and Baroque, Spain, Portugal, France, Germany, China, and Japan, with two chapters added to the original text by Walter P. Wright on Modern English Gardening and Landscape Architecture in North America.

IRISES. By F. F. ROCKWELL. The Home Garden Handbooks. 84 pages, 5 by 7¼ inches. Illustrated with drawings. New York: 1928: The Macmillan Co. \$1.

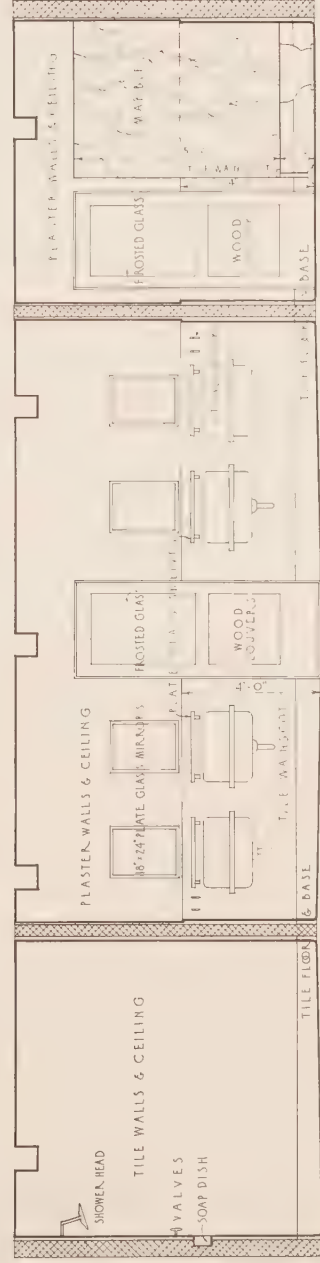
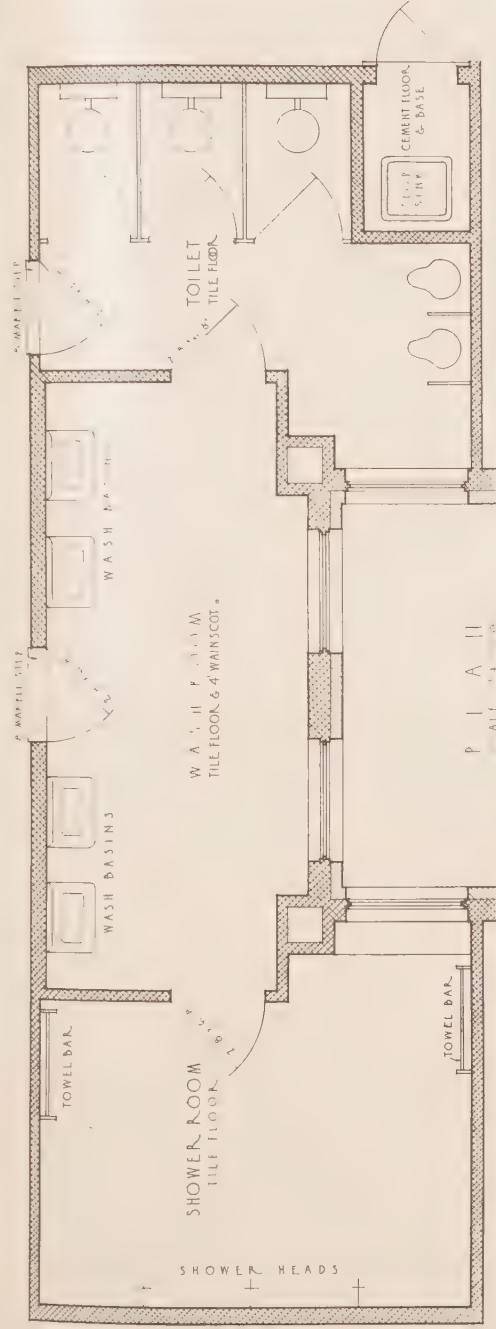
A new volume in Mr. Rockwell's series of little handbooks designed to supplement bulb catalogues and growers' lists.

ARCHITECTURAL DETAILS OF SOUTHERN SPAIN. By GERSTLE MACK and THOMAS GIBSON. 100 measured drawings and 113 photographs (160 pages), 10¼ by 13½ inches. New York: 1928: William Helburn, Inc. \$16.00.

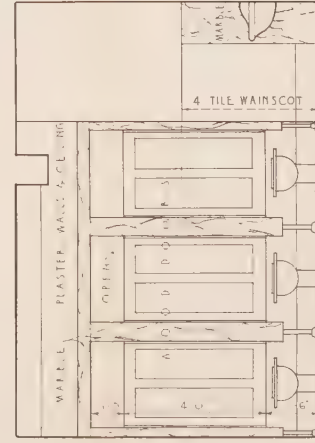
An excellent source-book with details in photograph and measured drawing reproduced at large scale. The authors have omitted the Moorish and Gothic details in favor of the Plateresque architecture of the sixteenth century and the later Renaissance of the seventeenth and eighteenth centuries. Most of the work shown is domestic in character, such as would be more valuable for adaptation in modern practice, though there are also details of some public buildings and ecclesiastical work.

METAL CRAFTS IN ARCHITECTURE. By GERALD K. GEERLINGS. 202 pages, 8½ by 11¾ inches. Illustrated with photographs, diagrams, and measured drawings. New York: 1929: Charles Scribner's Sons. \$7.50.

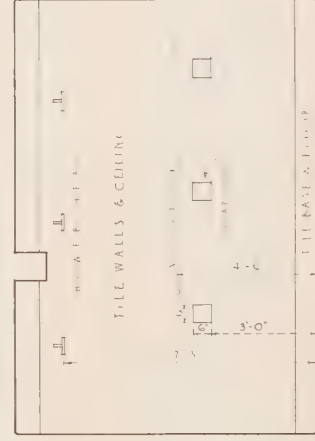
This is the first attempt, so far as we know, to put between the covers of one book all that need be known by the architect for the designing, craftsmanship, specifications, and after-treatment of architectural decorative work in the various metals. The author takes up each metal in a separate chapter, sketching its historical usage, dwelling at length on its present-day craftsmanship, and illustrating it by means of the finest historic and contemporary examples. The metals so discussed are bronze, brass, cast iron, copper, lead, zinc, tin, monel metal, and steel. And in addition, the author treats of lighting-fixtures and numerous current developments such as enamelling, depositing copper on glass, electroplating, chemical surface action, etc. The book seeks to convey an intimate knowledge of the characteristics of each metal in so far as these affect its design and methods of working it. There is a bibliography and an excellent chapter on specifications.



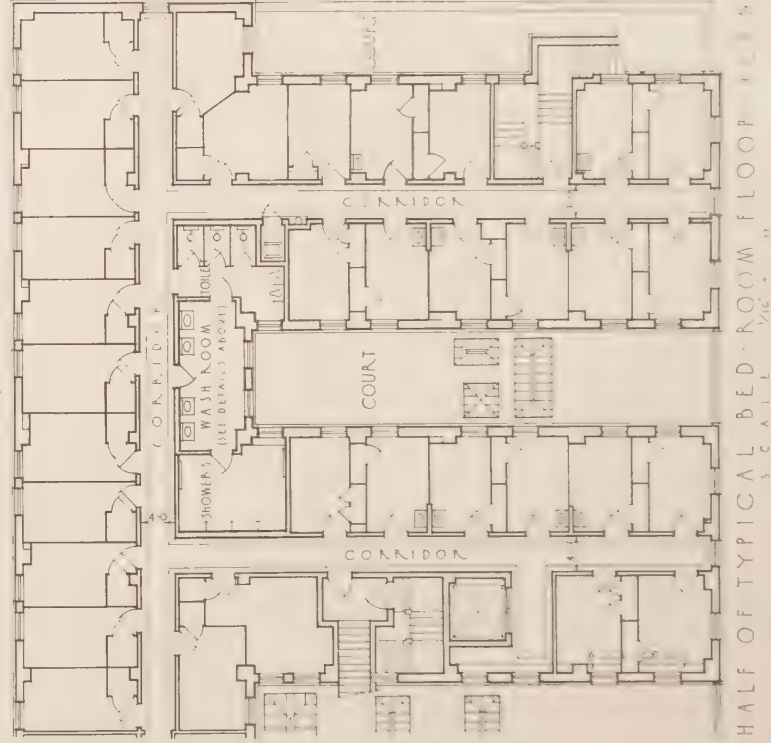
SECTION "A-A" WASH ROOM TOILET



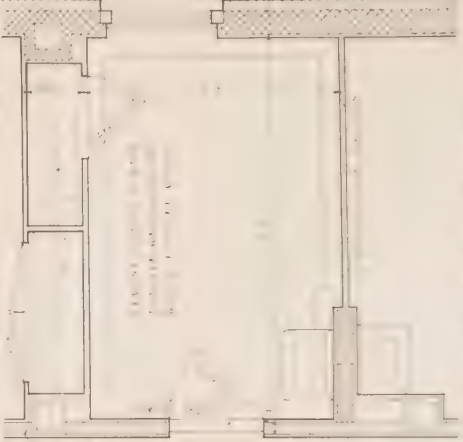
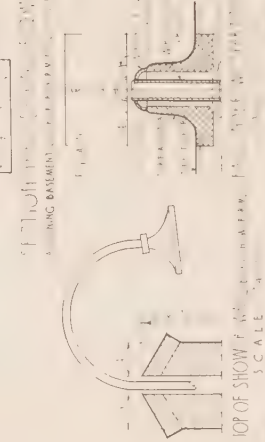
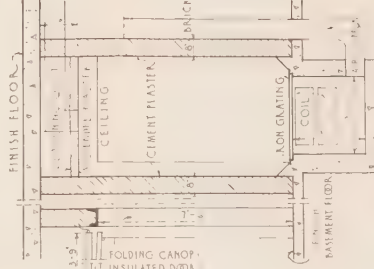
SECTION "B-B" (TOILET ROOM)



SECTION "C-C" (SHOWER ROOM)



HALF OF TYPICAL BED ROOM FLOOR



NOTES

PLANS AND DETAILS OF TYPICAL BEDROOM FLOOR,
PROSPECT PARK BRANCH (BROOKLYN) Y. M. C. A.

JOHN T. JACKSON, ARCHITECT

The plan of the bedroom floor overleaf should be of value in planning the economical hotel as well as a Y. M. C. A., because of various advantages which it incorporates. More space would permit of greater room sizes and corridor widths, but the utilization of the rear-interior corners of the light court for washroom, shower-room, and toilet unit can scarcely be improved upon. The problem of providing for all single rooms with double the number of windows on the façade as compared with a series of double rooms was not dodged for the sake of elevation, nor were corner rooms refused two windows.

Typical Rooms:

Approximately 7' by 11' in the clear; provided with clothes-closet or cupboard; doors from corridors to rooms, 2' 8" by 7'; closet doors, 2' 4" by 7'; single cupboard doors, 2' 4" by 6' 6"; double cupboard doors, 2' by 6' 6"; side partitions, 2" solid plaster; cement floor and base; plaster walls and ceiling; wood picture-molding; washbasins only in certain rooms.

Shower, Washroom, and Toilet Unit:

Shower-room floor, walls, and ceiling of tile;

washroom and toilet—floor and 4' wainscot of tile; walls above and ceiling of plaster; unit divided into three separate rooms; doors from corridor to washroom and toilet. Base under supports of w. c. partitions in toilet is of interest, being made of two sections of glazed terracotta and of sufficient size so that it is easy to mop around them; there is not the sharp intersection of metal escutcheon and floor which invites dirt to cling.

Drying-room:

Adjacent to the locker-room in basement is the so-called drying-room for members' gymnasium clothes. The latter are put into the members' private metal boxes (with perforations at sides and bottom, and no top), and placed on a wagon until there is a load. The wagon—really a series of shelves wide enough to accommodate the boxes—is wheeled into the drying-room where the heat dries out the contents. The drying-room is accessible by means of a folding canopy insulated door, drawn up to save floor space. The brick walls forming the sides are lined with cement plaster, as well as the furred ceiling.



A typical bedroom (see details overleaf)



The façade, for comparison with typical bedroom floor plan
PROSPECT PARK BRANCH (BROOKLYN) Y. M. C. A. JOHN T. JACKSON, ARCHITECT



Arthur C. Haskell

Detail of main entrance

CITY HALL, WALTHAM, MASS.

KILHAM, HOPKINS & GREELEY, ARCHITECTS

*Arthur C. Haskell*

CITY HALL, WALTHAM, MASS. Southern front

KILHAM, HOPKINS & GREELEY, ARCHITECTS



Upper corridor



Arthur C. Haskell

CITY HALL, WALTHAM, MASS. KILHAM, HOPKINS & GREELEY, ARCHITECTS

A southern entrance detail



Council chamber

Photographs by Arthur C. Haskell

Entrance lobby



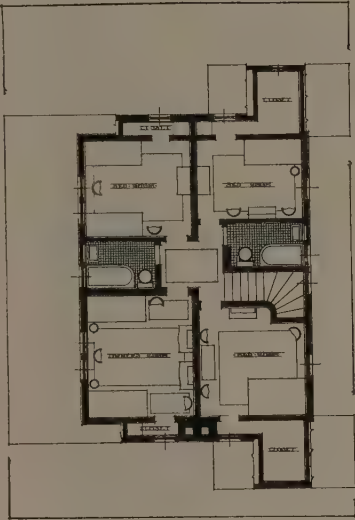
CITY HALL, WALTHAM, MASS.

KILHAM, HOPKINS & GREELEY, ARCHITECTS

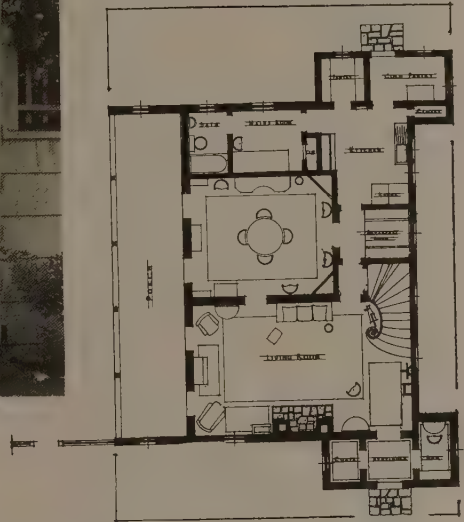
HOUSE OF HENRY
POWELL HOPKINS,
ROLAND PARK, MD.

HENRY POWELL
HOPKINS,
ARCHITECT

Second-floor Plan



First-floor Plan



*Photographs by
Holmes I. Meier*



*Holmes I. Meitz*

HOUSE OF HENRY POWELL HOPKINS, ROLAND PARK, MD., ARCHITECT AND OWNER



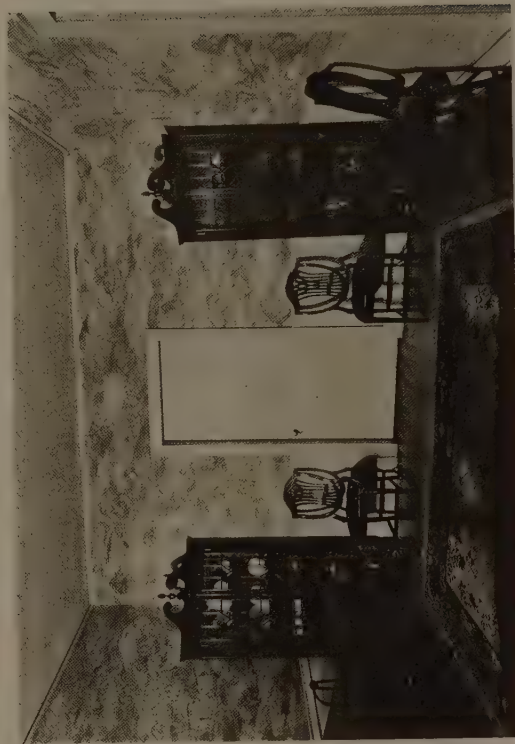
Holmes I. Mettee

HOUSE OF HENRY POWELL HOPKINS, ROLAND PARK, MD., ARCHITECT AND OWNER



Photographs by Holmes I. Mettee

These three photographs of the dining-room show the mural decoration by M. Paul Roche, covering the four walls above the wainscoting. The



decoration suggests the various periods of architecture, from the primitive lean-to down to the modern skyscraper of the present day.

HOUSE OF HENRY
POWELL HOPKINS,
ROLAND PARK, MD.

HENRY POWELL HOPKINS,
ARCHITECT

*Ph. B. Wallace*

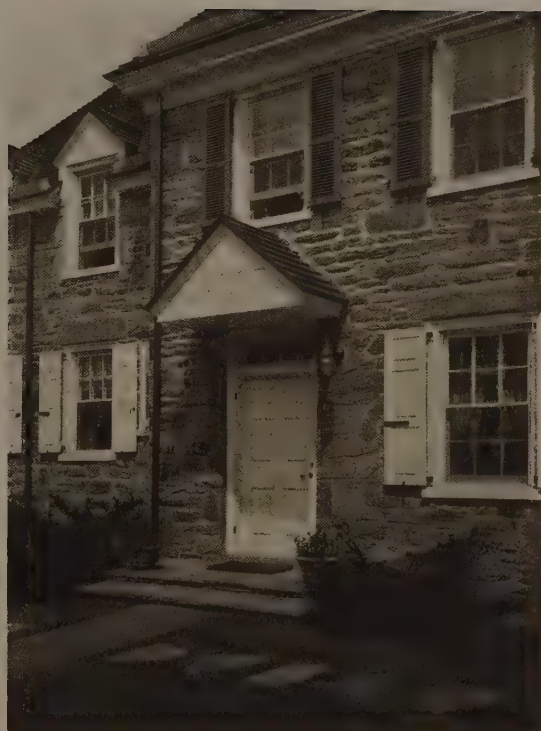
HOUSE OF PHILLIP WALLIS, BALA, PA.

FOLSOM, STANTON & GRAHAM, ARCHITECTS



The living-room end

Ph. B. Wallace



Main entrance

Living-room fireplace



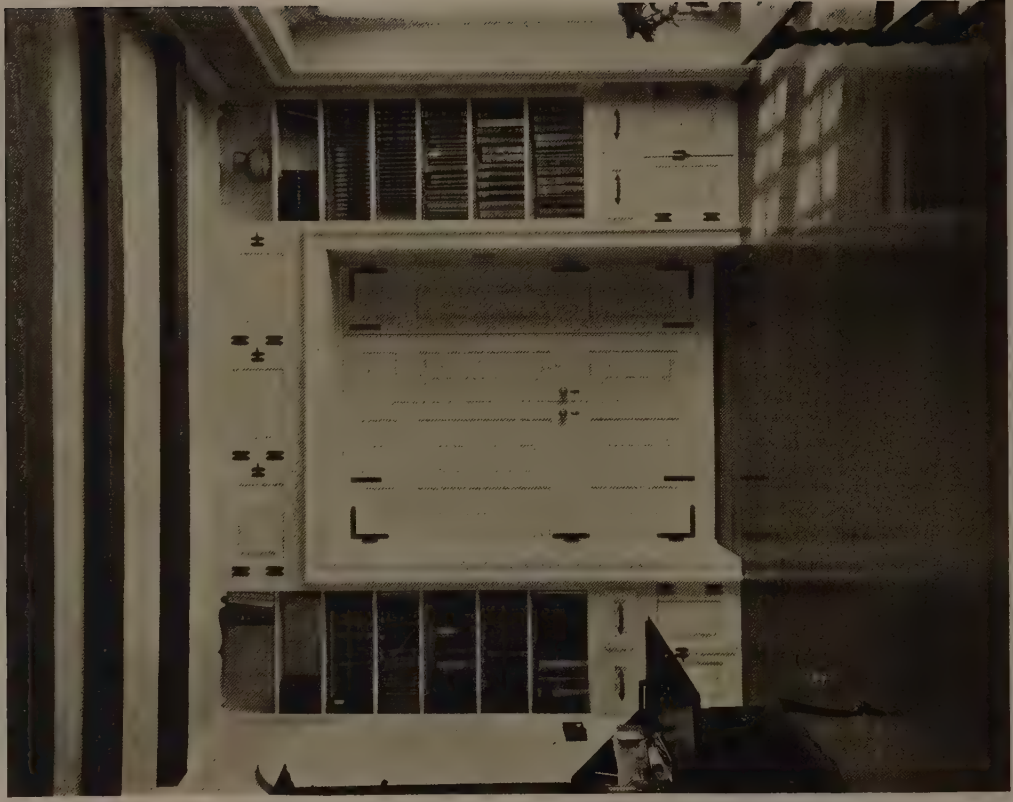
Ph. B. Wallace

HOUSE OF PHILLIP WALLIS, BALA, PA.

FOLSOM, STANTON & GRAHAM, ARCHITECTS



Entrance hall



Living-room ell

Ph. B. Wallace

HOUSE OF PHILLIP WALLIS, BALA, PA. FOLSOM, STANTON & GRAHAM, ARCHITECTS



The Architectural Clinic



ON HANGING BLUE-PRINTS IN A REFERENCE RACK,
VIEWING DETAILS, AND DRAFTING-ROOM DECORATION

WHEN the architect's office is just comfortably busy, with a table or two on which to spread reference blue-prints and those of jobs under way, the disposal of blue-prints is of no particular concern. However, when the radiators become props for boards and a night shift is added to help turn out a set of drawings for an impetuous client or, worse still, a high-pressure realtor, then reference blue-prints become the bane of every draftsman's table. Not only are they a constant annoyance to one's T-square and a means of concealing one's pet bow-compass, but because they have always to be rolled, they take on the irritating trick of springing up into a tight roll at the inauspicious moment when the client is referring to them and is just about to authorize travertine floors instead of cement ones.

With available drafting-table space at a premium, and the press of a large number of jobs always under way, York & Sawyer have solved the reference blue-print problem by a simple, ingenious series of slides under a drafting-room balcony. Figure 1 indicates the start of a longitudinal section through the drafting-room, and the position of a balcony whose under-side is about 6 ft. 6 in. above the drafting-room floor. On this under-face are a series of slides into which the reference sets of blue-prints are always put. Figure 2 indicates one of a number of simple means to effect a series of slides; the blue-prints are secured between two wood strips clamped together by thumb-screw bolts, while the tracks into which they slide can be small channels fastened to the under side of the balcony. The channels need not be steel but can be of heavy sheet metal, or—stage whisper—whatever material the last contractor owing the architect a favor cares to make them. Blue-prints thus clamped will readily

slide into the tracks and, since from the start they have been kept flat, will not habitually curl up. Above each slide there is an identifying notation for distinguishing the set of prints. Incidentally, it may be noted that in addition to the sets of prints which are of immediate use for the jobs under construction, there is one end reserved for various reference sets; for example, scale and full-size details of counter-screens which have been eminently successful and are of varying types are bound in a set, so that draftsmen unfamiliar with or forgetful of the practical requirements and usual dimensions may at once turn to them without loss of time. While many offices do not have room for a balcony, there is usually an awkward corner or some available wall space where the tracks can be placed with storage shelves above.

The York & Sawyer balcony serves a useful purpose in providing access to display space against the wall, where full-size details are studied from the floor of the drafting-room, at the approximate distance which the detail they represent will be when seen at the building. If the architect's office is sufficiently spacious to afford such a balcony, it is a great convenience, but if not, at least the idea of hanging full-size details on a wall and viewing them from a distance is well worth considering. One cramped drafting-room we have seen has a $\frac{7}{8}$ -inch wood strip which can be hoisted in a horizontal position from table height to ceiling by means of a pulley and rope at each end; drawings are thumb-tacked to it when it is lowered, and then raised to the desired height. In an old-fashioned office-building of the Middle West where we once worked, there was a large enclosed sort of court in the centre, surrounded at each floor by a balcony which served the offices. Full-size details were boldly drawn in charcoal, as for rood-



Fig. 1

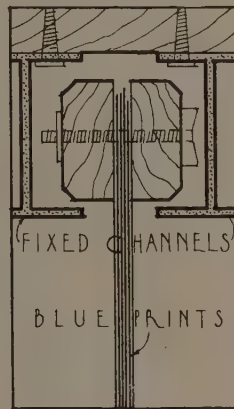


Fig. 2

beams, pinned to the balcony rail at the floor approximating the height above the first floor, to correspond to the height at the building. Then the guilty draftsman, the head draftsman, and sometimes the boss himself, would gather for a Versailles conference—not to mention all the amused dentists' assistants who chose to look on.

Every architect fondly remembers the atelier atmosphere of his student days, yet in his own office seldom tries to reincarnate any of the *en-*

tourage which can go a long way toward changing a drafting-room from a bread-and-butter factory to a colorful atelier. To return again to the York & Sawyer drafting-room: it has the wall space punctuated with posters which Philip Sawyer collected ever since his Beaux-Arts days at Paris. Many of them are noteworthy in design or lettering, most of them are ablaze with color, and all of them definitely contribute to a certain *esprit de corps*.

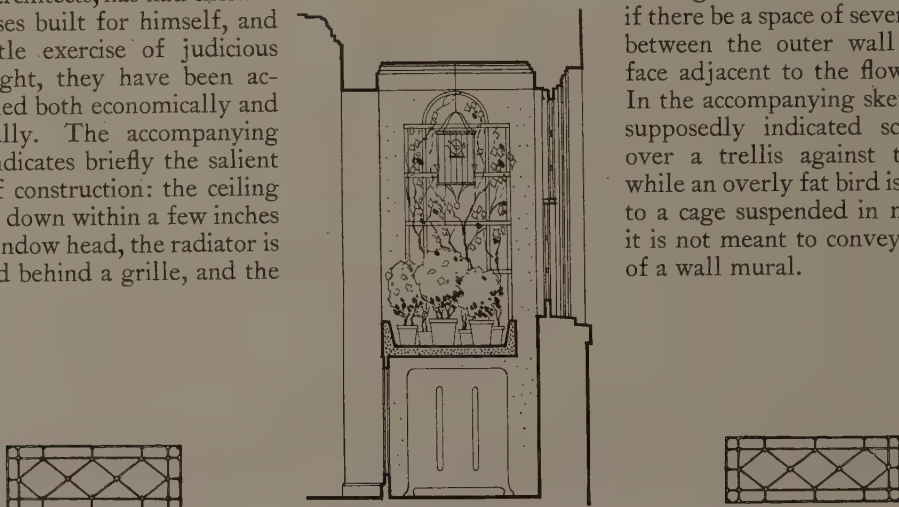
ON FLOWERING BAYS

ON a preliminary sketch nothing is more irresistible to show the client, both in plan and interior perspective, than a bay-window flowering with plants and accented with canaries on the axis. Final working drawings are apt to see the bay's glory shrunk to a seat, while in execution the room's floor, ceiling, and a side wall are carried through into the bay, and render the latter only an irregular projection of the room. Even when the window-seat persists and finally survives, it is usually varnished, and then when potted plants are too generously watered, slyly records the overflow in indelible chalk circles. Finally the owner's appetite for a "conservatory bay" loses its edge, and the nook becomes instead a refuge for old magazines.

The realization of a bay which actually functions as a colorful haven for potted plants and canaries (goldfish, if your client prefers) is not necessarily at the sacrifice of a tremendous outlay of hard-earned wealth. G. J. De Gelleke, of the firm of Van Ryn & De Gelleke, Milwaukee architects, has had them in two houses built for himself, and by a little exercise of judicious forethought, they have been accomplished both economically and successfully. The accompanying sketch indicates briefly the salient points of construction: the ceiling is furred down within a few inches of the window head, the radiator is concealed behind a grille, and the

basin for the potted plants is faced with ceramic tile and lined with a less expensive type. If absolute economy must be exercised, a wood apron on the face would suffice, with a basin lined with a good grade of tin, well painted. The basin is drained to one point on the side toward the window, a drain-pipe is carried down the inside of the wall, and then through the wall to the exterior at about the grade level, where its presence can be hid by planting. If a regular plumbing drain were connected to the general system, some plumber would romp home the richer for several days' work, but the type described direct to the outside serves equally well, and, since the amount of water to be carried off is negligible, there is no danger of flooding the basement. In order to make sure that the plants are supplied with fresh air without having to open the entire window, a simple small louvre arrangement is advantageously placed in a wide bottom-rail of the lower sash. There will be the highest possible efficiency from the radiator, according to the honored precepts,

if there be a space of several inches between the outer wall and the face adjacent to the flower-basin. In the accompanying sketch ivy is supposedly indicated scrambling over a trellis against the wall, while an overly fat bird is confined to a cage suspended in mid-air—it is not meant to convey the idea of a wall mural.





A Pictorial Review of Modern Architecture in Europe



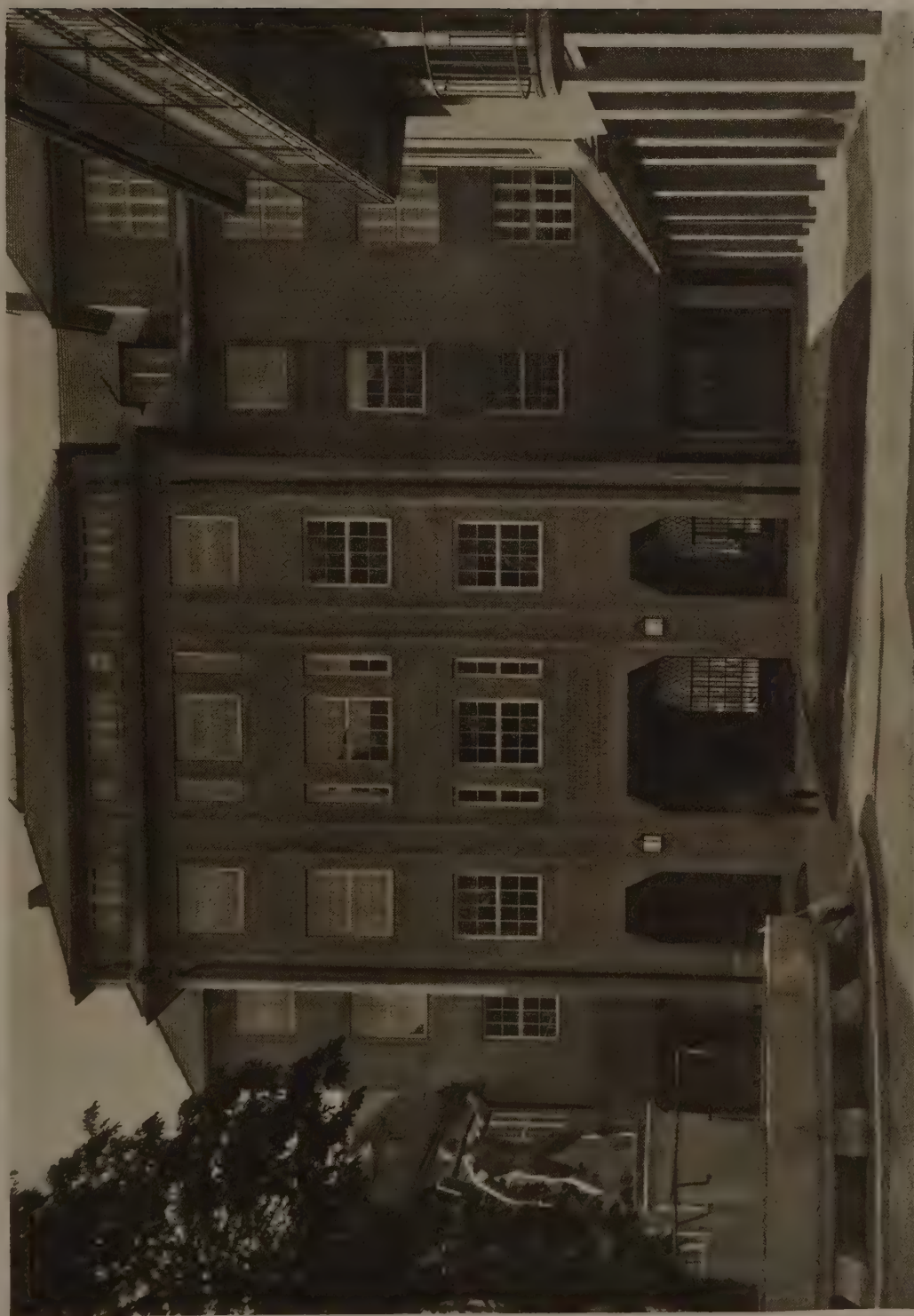
By F. R. YERBURY, Hon. A. R. I. B. A.



School at Rotterdam

Designed and built by the municipality

*School at Rotterdam**Designed and built by the municipality*



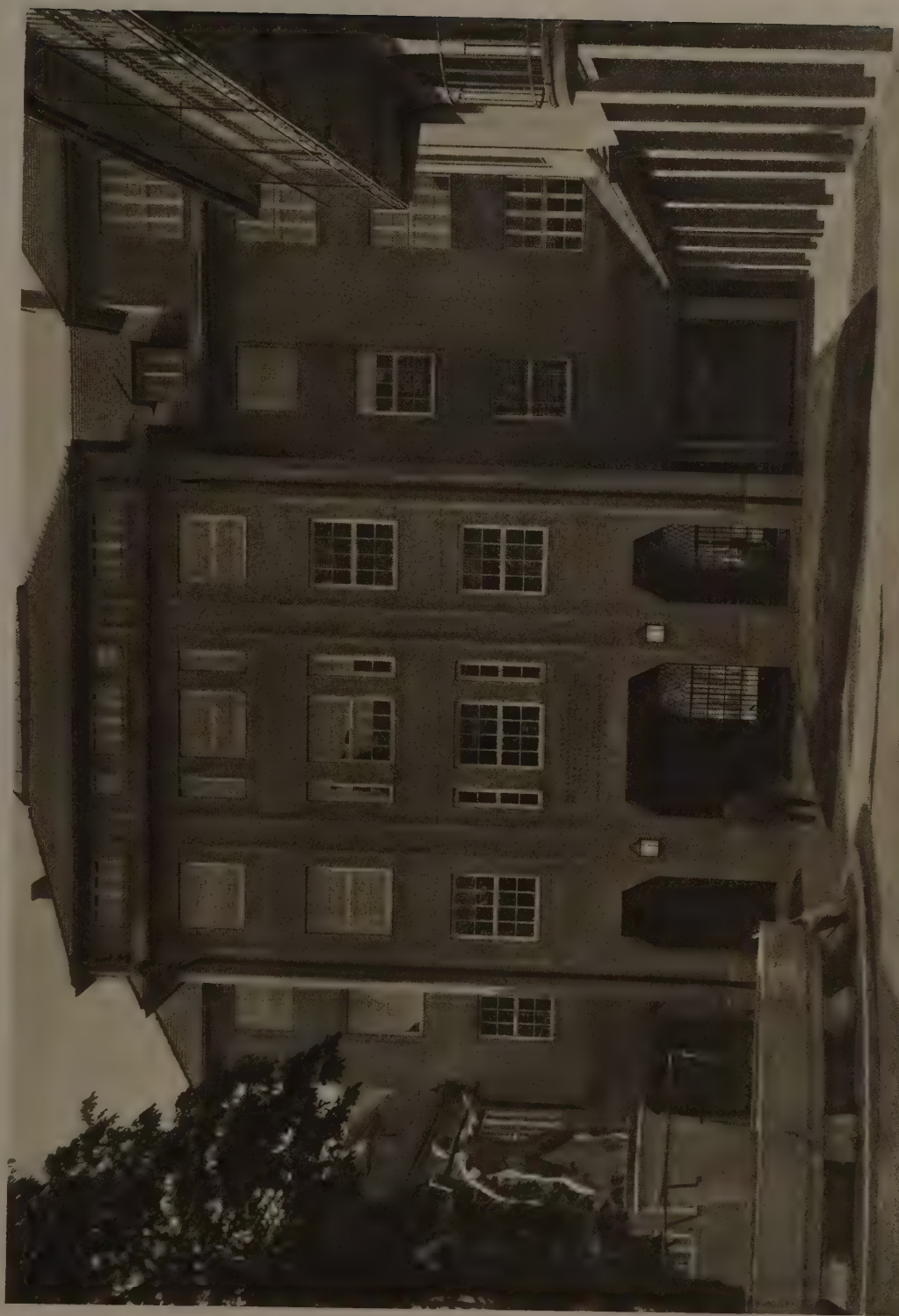
Technical School for the Woodworking Trades, Vienna. Entrance block from courtyard
 Josef Hofbauer and Wilhelm Baumgarten, Architects



School at Rotterdam

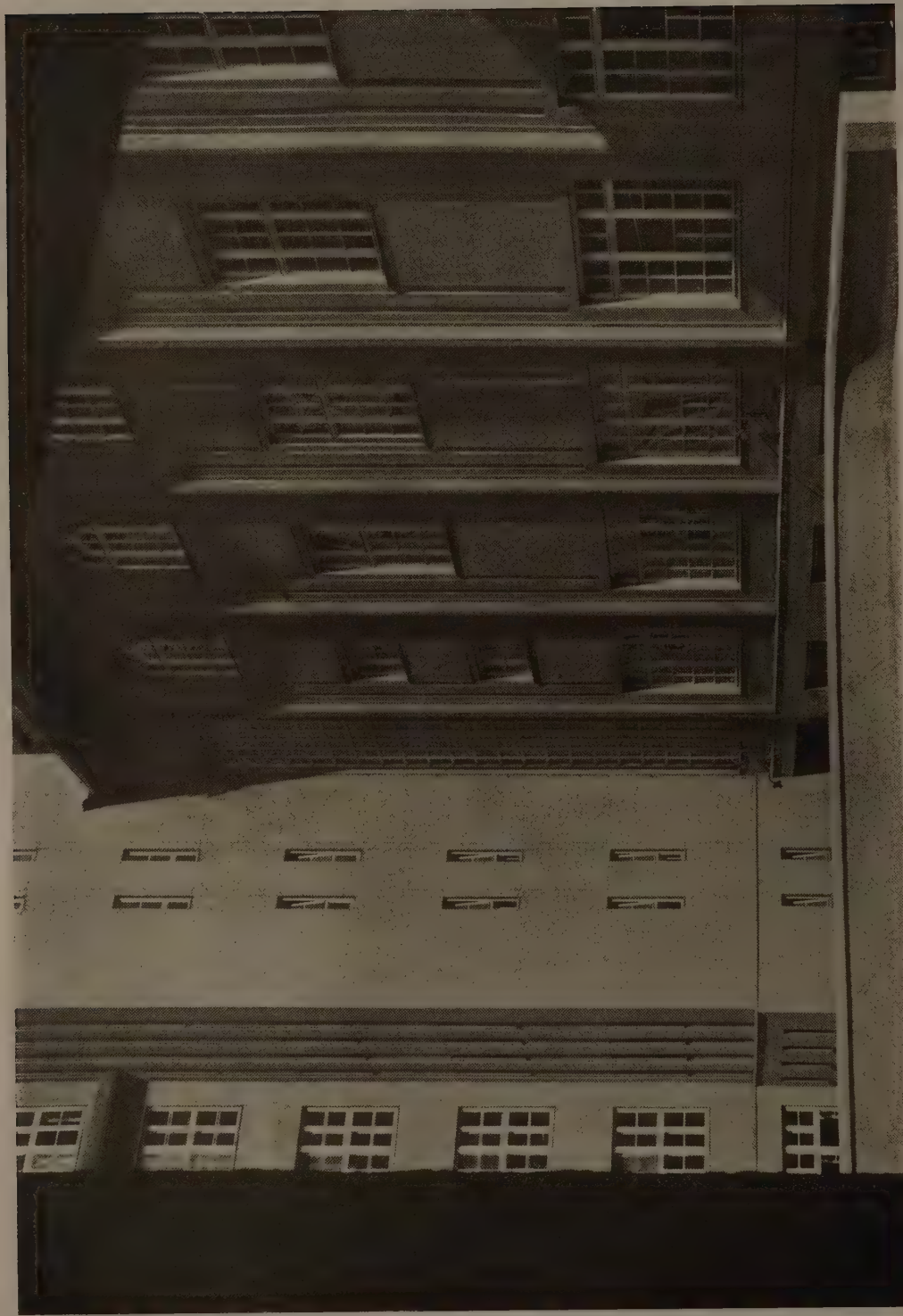
Designed and built by the municipality

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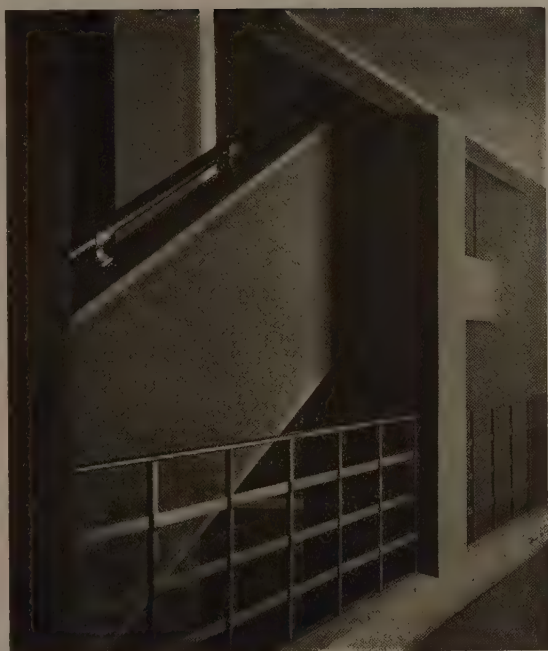
Technical School for the Woodworking Trades, Vienna. Entrance block from courtyard

Josef Hofbauer and Wilhelm Baumgarten, Architects

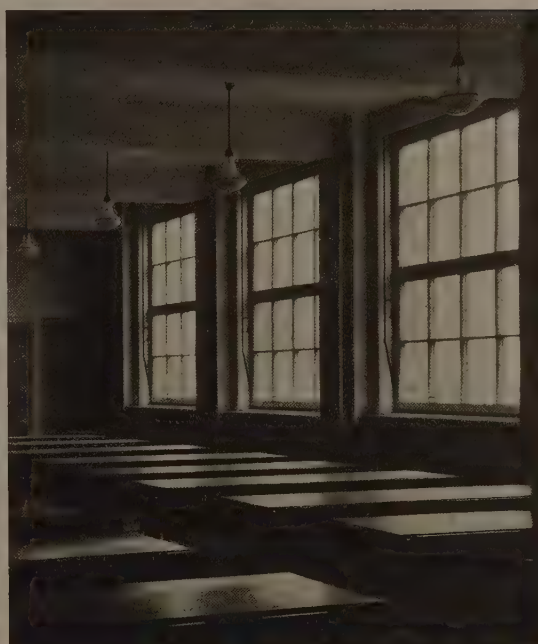


Technical School for the Woodworking Trades, Vienna. A courtyard

Josef Hofbauer and Wilhelm Baumgarten, Architects



Interior staircase details. Walls are orange; woodwork and iron work, blue and gray



Detail of a typical classroom

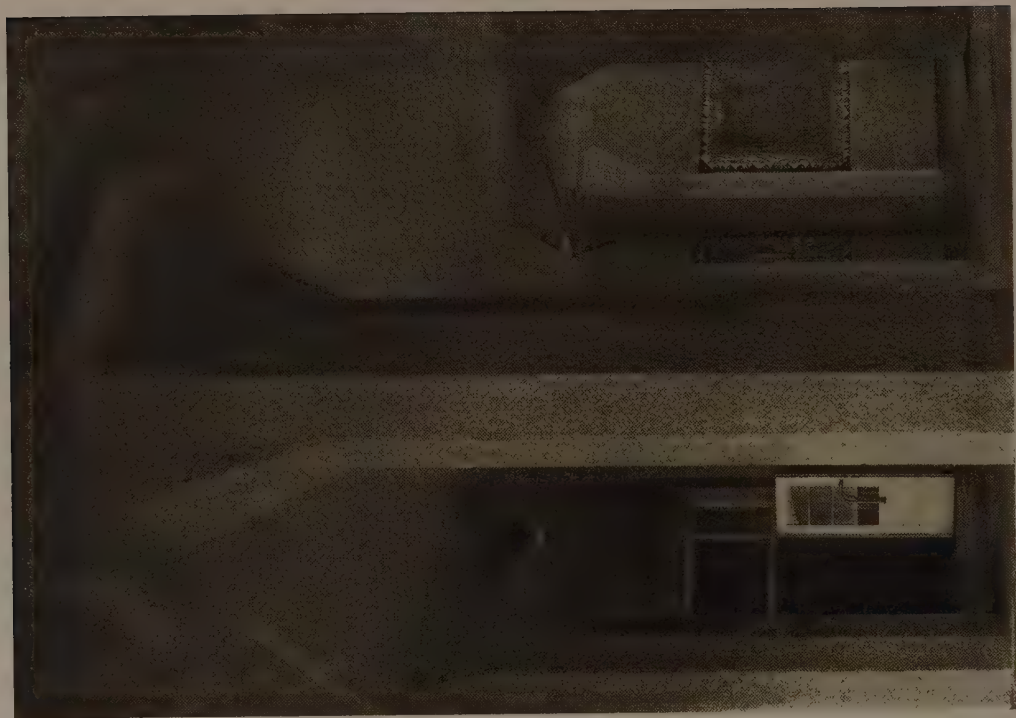


Technical School for the Woodworking Trades, Vienna Josef Hofbauer and Wilhelm Baumgarten, Architects



The courtyard, showing one of the sanitary towers

Technical School for the Woodworking Trades, Vienna



Concrete pillars of the entrance vestibule
Josef Hofbauer and Wilhelm Baumgarten, Architects



ARCHITECTURE'S PORTFOLIO OF GARDEN STEPS



HERMAN
BROOKMAN



GUY
LOWELL



ANDREW J.
THOMAS



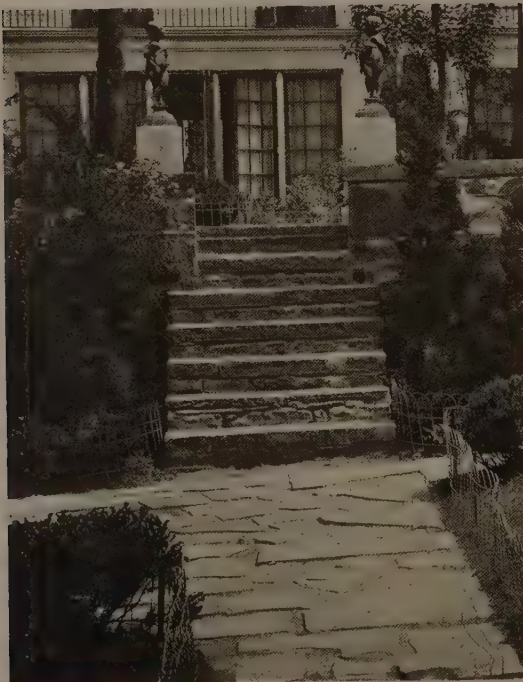
DAVIS, DUNLAP & BARNEY



HARRY ALLAN JACOBS



EDWARD S. HEWITT



LOUIS C. TIFFANY





LEWIS BOWMAN



H. H. HUNNEWELL



H. H. HUNNEWELL



JOHN RUSSELL POPE





NOEL CHAMBERLIN;
FOSTER AND VASSAR



DAVIS, DUNLAP
& BARNEY



CARRÈRE &
HASTINGS



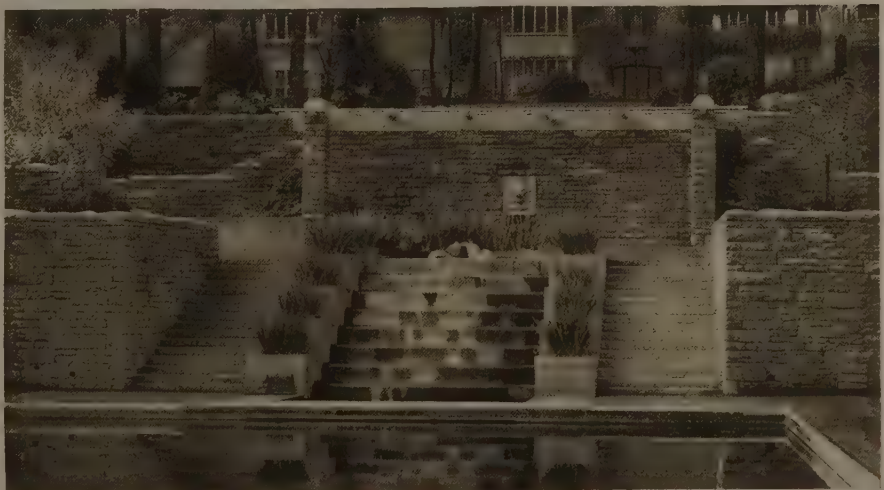


MRS. C. F.
MEYER

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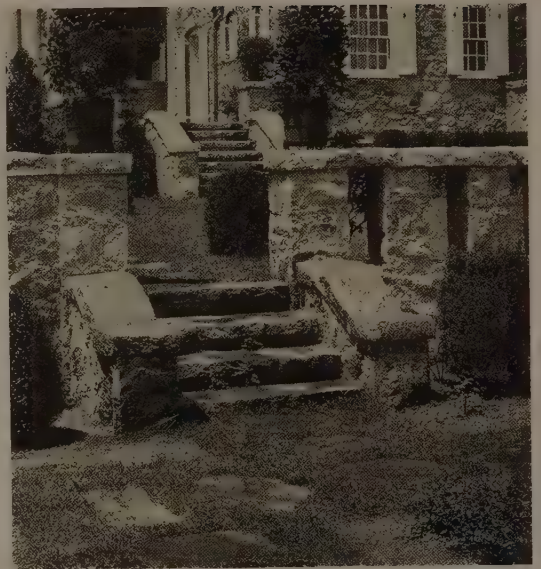
DELANO &
ALDRICH



HERMAN
BROOKMAN



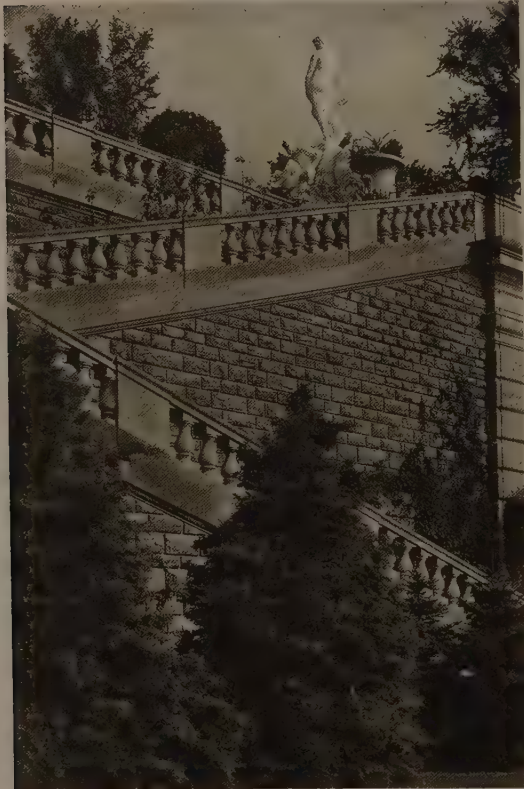
DELANO & ALDRICH



FREDERICK STERNER



WELLES BOSWORTH

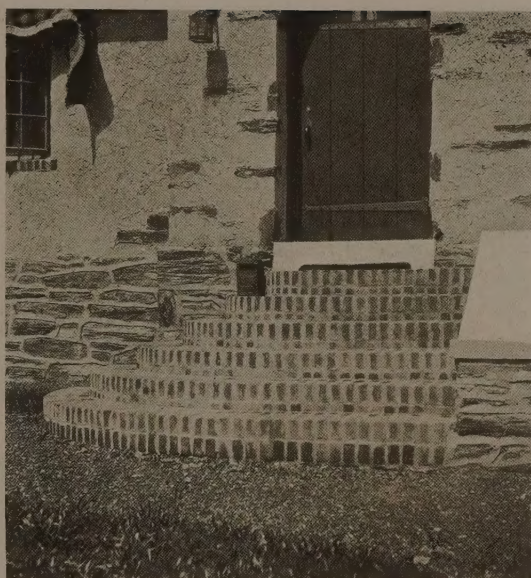


HOWELL & THOMAS





BROADWAY, WORCESTERSHIRE



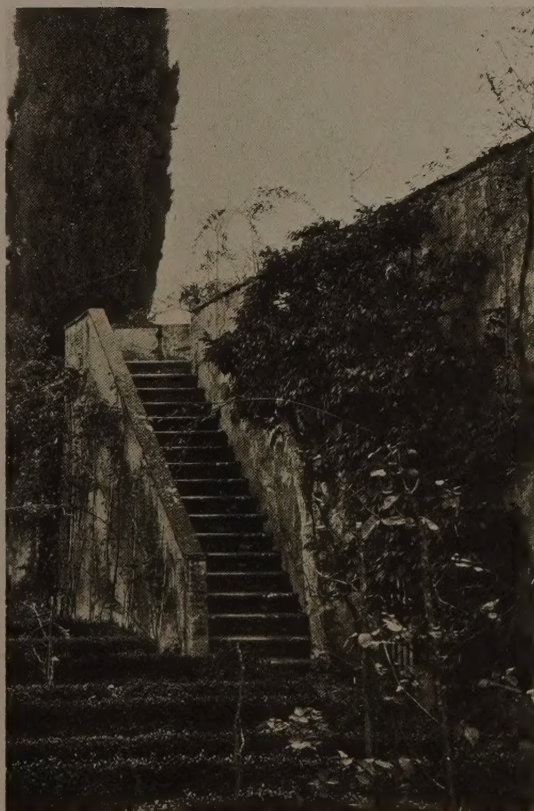
WILLIAM W. PRICE



VILLA CAPPONI, CERCETRI



GEO. D. MASON & CO.





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RUTH DEAN



E. GUY
DAWBER



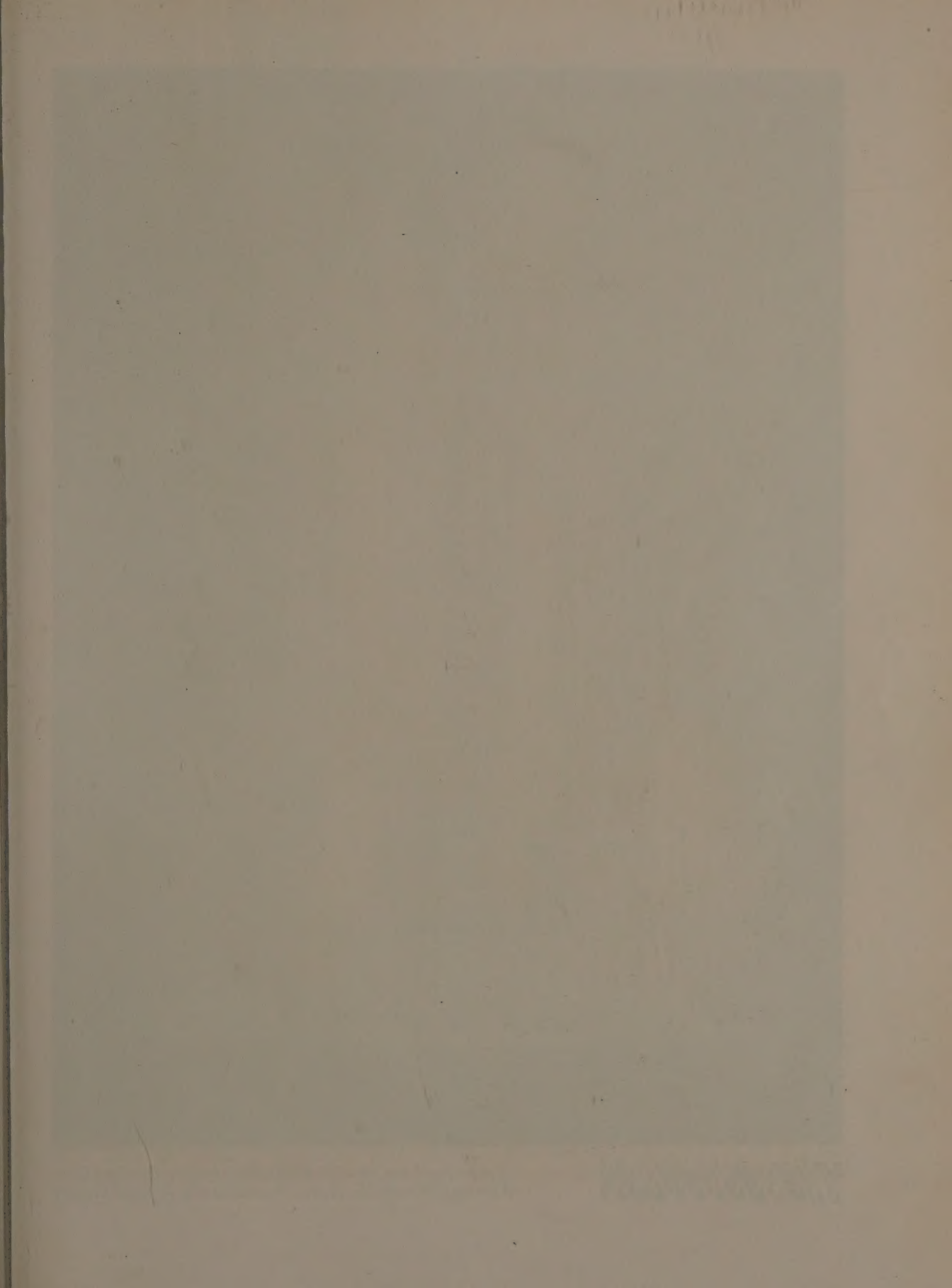
BROADWAY,

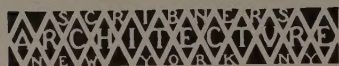
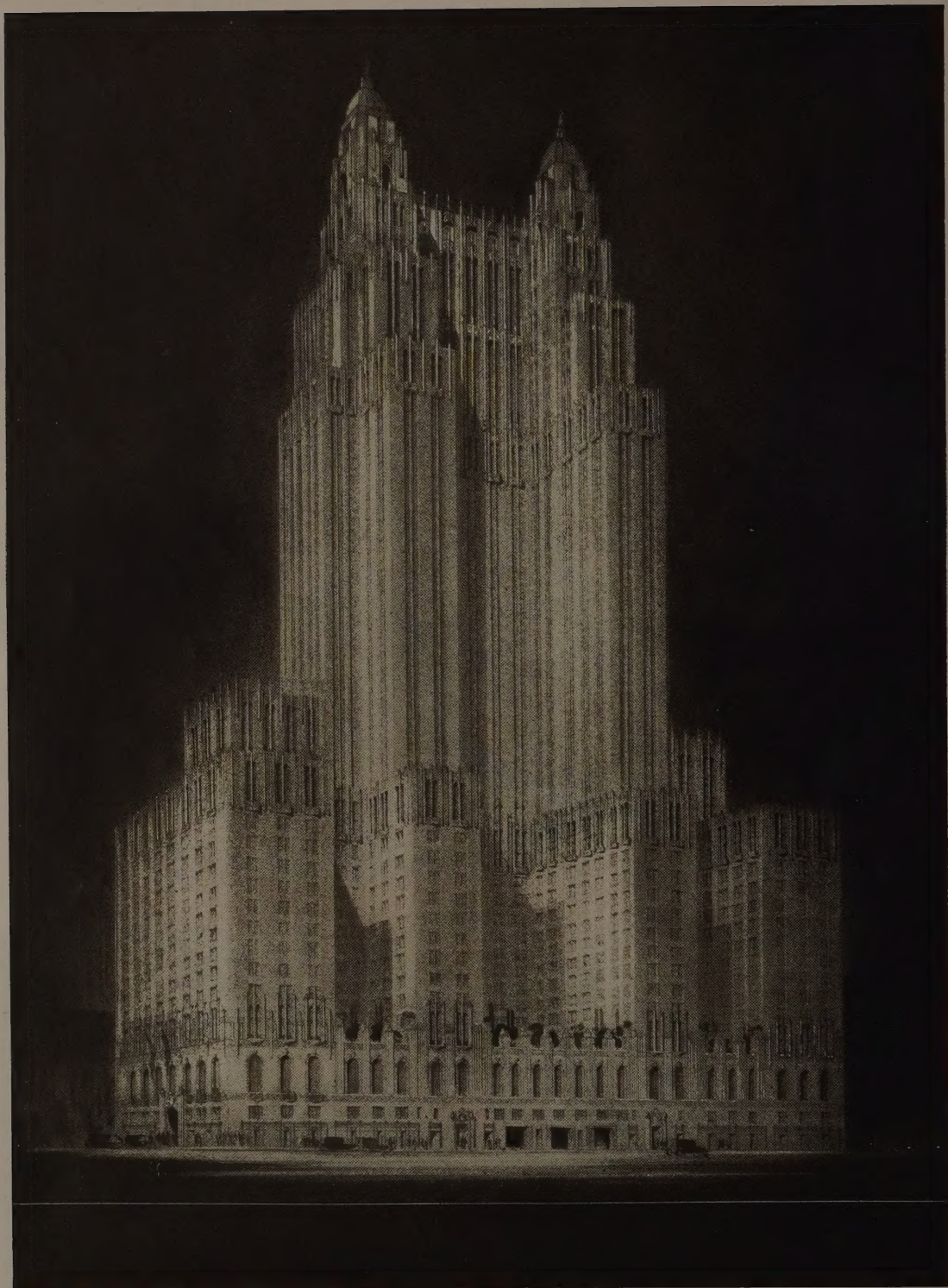
WORCESTER-
SHIRE

PAS DE CALAIS
Courtesy of J. B. Lippincott Co.

WILLING, SIMS
& TALBUTT







*The proposed new home of the Waldorf-Astoria, New York City.
Schultze & Weaver, Architects. From a drawing by Lloyd Morgan*